

Informatics

AN e-GOVERNANCE PUBLICATION FROM NATIONAL INFORMATICS CENTRE



NIC-CERT Launched by
Hon'ble Union Minister, E&IT

Electronic-Human Resource
Management System by NIC

NIC at the 5th Global
Conference on Cyber Space

e-Labour Portal, CM Dashboard
& NGDRS launched in Punjab

School Education Portal of
Uttarakhand

e-Services portal of Urban
Local Bodies in Goa

Malnutrition Monitoring
System of Malda

e-Granthalaya- transforming
libraries of govt. to e-Libraries

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Witnessing an illustrious spell of achievements and happenings in ICT driven activities of our government, the year 2017 gracefully gives way to its successor. A new year is born with much hope and enthusiasm, optimism and preparedness to augment the momentum of e-governance activities in the Country.

NIC takes the pride of being instrumental for the success of many of the ICT accomplishments under Digital India. The awards and accolades won at various levels are testimonials for the exemplary services rendered by NIC besides the encouraging response received from citizens and various other stakeholders.

The recent launch of NIC-CERT to secure our Government's cyber space is one among the many significant steps taken, which endorse the organization's relentless commitment to the nation. Each of the individuals involved, directly or otherwise in NIC's success stories deserve due credit and applause.

This issue of Informatics carry the 3rd release of *Appscape*, in which 5 new Apps developed by NIC are showcased. Inauguration of NIC-CERT, Launch of Electronic-Human Resource Management System, NIC at 5th Global Conference on Cyber Space, Launch of Punjab's e-Labour Portal, CM Dashboard & NGDRS have been covered in the *Spotlight* section. Arunachal Pradesh and Tamil Nadu are the States covered in *From the States* section, where as Seoni and Tehri are the featured Districts in the Issue. The School Education Portal of Uttarakhand, Common Portal for e-Services of Urban Local Bodies in Goa, Malnutrition Monitoring System, Malda and e-Granthalaya are the articles covered in *e-Gov Products & Services* section. Artificial Intelligence and Data Lake are the articles covered in *Technology Update*. The sections, *Accolades*, *International e-Gov Update* and *In The News* are here for you as always.

Hope you like the presentation of this issue. Please send us your valuable feedback and suggestions to improve the magazine further.

Wishing you a very Happy New Year and a splendid time ahead.

Enjoy reading!

Editor

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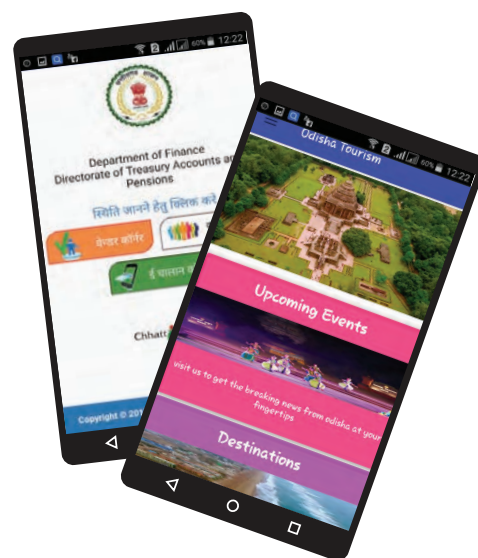
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Dear NICians,

Wishing you a very Happy New Year

2018.

Last year was an exciting and eventful one for NIC. I take this opportunity to thank you for your valuable contributions, which were key to our achievements.

We are privileged to be born in an era of constantly evolving technology and as part of the NIC family, we have a wonderful opportunity to use technology to touch the lives of many across the Country.

Let us all work together to make this new year a new chapter for NIC, filled with happiness and success for everyone.

I wish you and your dear ones
good health, happiness & prosperity
in this new year.

Neeta Verma
Director General, NIC

NIC-CERT Established to Safeguard Government Webspace

Hon'ble Union Minister, Shri Ravi Shankar Prasad inaugurates NIC-CERT at National Informatics Centre

Shri Ravi Shankar Prasad, Hon'ble Minister of Law & Justice, Electronics & Information Technology inaugurated 'NIC-CERT' on 11th December, 2017.

NIC-CERT has been setup by National Informatics Centre under Ministry of Electronics and Information Technology (MeitY). Secretary, MeitY, Shri Ajay Sawhney, Director General, NIC, Smt. Neeta Verma, various dignitaries and other senior officers were present during the occasion.

Hon'ble Minister, during his inaugural speech said that as part of the Digital India programme, the Government has introduced many of the services online. Although this has made services very much accessible to the citizens, it has also exposed them to the threats and vulnerabilities which are an inherent part of cyberspace. He added that in the recent past, there has been an exponential growth in cyber attacks leading to concerns of data theft which led to Government drafting the Data protection Act. As Internet, with its ever



Hon'ble Union Minister, Shri Ravi Shankar Prasad inaugurates NIC-CERT in the presence of Secretary, MeitY, Director General, NIC and other dignitaries

expanding canvas of opportunities is touching the lives of people, it necessitates the requirement to upscale the existing security infrastructure.

The Hon'ble Minister stated that NIC has been doing a remarkable job in securing the Government cyberspace for a long time and by setting up this centre, they have taken their experience and expertise to the next level.

Hon'ble Minister, Shri Ravi Shankar Prasad emphasised that for responding to the cyber attacks of today, the Government needs an agile and responsive eco-system. NIC-CERT has been setup with the objective of creating a comprehensive framework that integrates world class security components and inbuilt threat intelligence for detection, prevention and incident response. Using the tools, the team will correlate events that would help in generating a canvas of the attack surface and identify the vulnerabilities and possible exploits. The gathered intelligence assimilated with the knowledge of open web would give CERT the ability to prevent and predict attacks.

NIC's PAN-India connectivity and reach adds to its key strengths and this coupled with its enhanced ability to detect and prevent attacks would collectively upscale the Government's ability to protect its data.

NIC-CERT will operate in close coordination and collaboration with sectoral CERTs and more so with CERT-IN.



Hon'ble Union Minister, Shri Ravi Shankar Prasad addressing the gathering after the inauguration of NIC-CERT

By **NAGENDRA KUMAR, NEW DELHI**

Electronic-Human Resource Management System for Government Launched

Hon'ble MoS, Dr. Jitendra Singh released the e-HRM System during observance of Good Governance Day on 25th December, 2017 in New Delhi



Hon'ble Union Minister of State (Independent Charge) for Development of North Eastern Region (DoNER), PMO, Personnel, Public Grievances & Pensions, Atomic Energy and Space, Dr. Jitendra Singh launched the electronic-Human Resource Management System (e-HRMS) on 25th December, 2017 at the Ministry of Personnel, Public Grievances & Pensions. During the occasion, the Minister launched 25 applications of 5 modules of the System. The e-Service book launched for Department of Personnel & Training (DoPT) during March 2017 is to be integrated into the e-HRMS soon.

Shri Ajay Mittal, IAS, Secretary (DoPT), Ms. Neeta Verma, DG (NIC) and Ms. Vashudha Mishra, AS (AR&PG) were the dignitaries present at the launch event besides the other senior officers from department. The system has been developed by National Informatics Centre (NIC) which is a one-stop online platform using which employees can view their service book, leave, GPF, Salary etc. They can also use this system to apply for different employee services such as claims/ reimbursements, loan/ advances,

leave, leave encashment, LTC advances, Tour etc. Employees shall not be dependant for data updating on administration, but they may themselves update the data with their login subject to verification by concerned administration. They will be able to track status and match details



// This is an initiative by which the technology will be put to optimum use. The other Departments and State Governments will also follow this system in due course. All these initiatives are in the direction of citizen-centric approach of Government **//**

instantly. The system is designed in a way to obtain all management related inputs/ reports through its Dashboard and all pendency of data updating as well as claims will be seen online by senior authorities that will instil more responsibility and accountability among all government servants.

Speaking on the occasion, Hon'ble Minister said that the launch of e-HRMS is also a step towards the 'ease of governance'. Smt. Neeta Verma, DG-NIC, in her speech said that the eHRMS is a cost-effective initiative, thus sustainable in the long run and will also provide HR analytics for the Government. This will help Government to post the right man at right post, thus get the best of an employee.

The system targets to ultimately bring all the employees of Government of India on employee portal so that all processes of personnel management from hiring to retiring will be on digital platform. The five bigger modules covering 25 applications of eHRMS are **Personnel Information System, Leave, LTC, Loan/ Advances and Tour.**

By **MADHURI SHARMA, NIC HQ**

NIC Presented at Global Conference on Cyber Space (GCCS) 2017

National Informatics Centre showcased its ICT excellence at the GCCS held in New Delhi recently

The Global Conference on Cyber Space (GCCS), an international event where global leaders, policy makers, industry experts, think tanks, cyber wizards etc. gather to deliberate on issues and challenges for optimally using cyber space. The 5th GCCS was inaugurated by Hon'ble Prime Minister, Shri Narendra Modi on 23rd November, 2017 in a grand function at Aerocity, New Delhi.

The GCCS 2017 was with the themes; Cyber4Growth, Cyber4DigitalInclusion, Cyber4Security and Cyber4Diplomacy.

NIC was a prominent participant in the event and its stall was one of the attractions in the pavilion. The various Mission Mode Projects (MMPs) that are developed by NIC were portrayed at the stall along with details and promos of path breaking initiatives and works that are undertaken by NIC.

Hon'ble Union Minister of Electronics & Information Technology, Law & Justice, Shri Ravi Shankar Prasad, in his speech said: "we are at the cusp of a big change, some of the changes are coming due to our efforts and some of the changes are occurring because of the power of technology. We have to acknowledge the transformative power of digital technol-



ogy and need to have an egalitarian global cyber space".

Shri Ajay Sawhney, Secretary, Ministry of Electronics & Information Technology, in his speech highlighted that cyber space has become the 5th domain of concern after land, sea, air and space from a point of view of national security and stated that India sees the future of cyber space as being one where emerging digital nations can transform the lives of their people through good governance and thus

the people feel encouraged to embrace the internet through an ecosystem of trust. Shri Sawhney said that a free cyber space is one where not only the fundamental freedom rights but, more importantly protections enjoyed by the citizens in the physical world can also be made equally available online.

Director General of NIC, Smt. Neeta Verma was one of the key speakers at the conference. She was also the moderator of a session on Policies and framework for protecting Critical Information Infrastructure, which was one of the themes of GCCS 2017.

Smt. Verma aptly put forth that any infrastructure is said to be critical in nature if the disruption to that infrastructure could cause a socio-economic crisis which can cause an adverse impact on national security or safety of the citizens. Power, water, health, communication network, finance and banking are considered to be the critical infrastructure which are increasingly becoming technology dependant for their security.



Director General, NIC, Smt. Neeta Verma along with officers at the NIC Stall

By **ASHISH ASTHANA, NIC HQ**

e-Labour Portal, CM Dashboard & NGDRS Launched in Punjab

Hon'ble Chief Minister, Captain Amrinder Singh initiates new steps to improve efficiency, transparency and effectiveness of e-Governance in the State



Hon'ble Chief Minister of Punjab, Capt. Amrinder Singh recently inaugurated 3 important e-Governance initiatives in the State of Punjab. The e-Labour portal, Chief Minister's Dashboard and the National Generic Document Registration System (NGDRS) were the launched initiatives aiming the e-Governance in the State to attain a new horizon.



e-Labour Portal of Punjab (pblabour.gov.in)

Launched on 22nd November, 2017, the e-Labour portal enables access of various services offered by the Department of Labour, Govt. of Punjab under various labour laws in an easy and hassle-free manner. Designed and developed by the National Informatics Centre, Punjab, in close coordination with the Department of Labour, this online platform facilitates direct payment to labourer's bank account under various welfare schemes. The portal is centric to industries and workers operating in the State of Punjab.

The Hon'ble Chief Minister lauded the pro-worker initiative taken by the Labour Department and informed that the portal would act as a one-stop shop for the workers. The Principal Secretary (Labour), Shri Sanjay Kumar said that the system would help Department to ensure strict enforcement of labour laws towards the safety, health and welfare of the workers. The portal features online registrations, online application submission through dynamic Common Application Form (CAF), One-time document submission, Fee payment in one go through online payment gateway, Online processing, Time bound approvals (as per Right To Service Act), Third party verification and graphical dashboard to facilitate decision making.



CM Dashboard, Punjab

CM Dashboard is an online system which presents status and achievements of various government schemes and projects, graphically & chart-wise using web based software. The data is picked directly from servers hosting software of these schemes through web services. Presently data of 35 schemes have been displayed on the Dashboard and can be accessed through the login facility. The Chief Minister, Ministers & Secretaries of the Departments can view data of the schemes.



National Generic Document Registration System (NGDRS)

NGDRS was launched by Hon'ble Chief Minister on November 17, 2017. Developed as national initiative, this system facilitates online documents and property registration with public appointment feature. After thorough testing at pilot sites of Adampur and Moga Tehsils, state-wide implementation and roll out of NGDRS in Punjab has been initiated. Currently NGDRS has been replicated in 51 SROs successfully.

By **SATYENDER KUMAR, PUNJAB**

Arunachal Pradesh State

Transforming Challenges into Opportunities using Innovative ICT Advancements

Over the years, various ICT-based initiatives have been taken up by the Government of Arunachal Pradesh to foster innovation and improvement in the delivery of services to citizens, thereby making life simpler and easier. In the State, NIC does not leave any opportunities for innovations in order to deliver best ICT-based solutions to the Government.

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Edited by
RUBAIYAT UL ALI

Arunachal Pradesh is a beautiful state located in the north-eastern region of India. It borders the states of Assam and Nagaland to the South, shares international borders with Bhutan in the west, Myanmar in the east and China in the north. The NIC State Centre is located in the Civil Secretariat at Itanagar which is the capital of the State. The State consists of 21 districts, mostly situated in the challenging terrains of the Himalayan range.

try, and contributes immensely for the development of our economy. Its potential to transform the lives of the citizens is immense. In the ICT front, NIC has so far been able to connect 07 (seven) districts with (DAMA) VSATs, 06 (six) districts with 2Mbps Leased Lines (LL) - combination of Optical Fiber Cable (OFC), Microwave & Copper and 02 (two) districts with 34 Mbps LL. But even now 06 (six) districts are completely unconnected. However, NIC is in the process of upgrading these connections with high-speed equipment in all districts including the unconnected ones. Further, the process for establishment of NIC in new districts has been initiated.



NIC has setup its centres in 16 districts. Tawang is one of the districts which consists of continuous chains of hills and mountains, the altitude varies from 3,500ft to 22,500FT while Dibang Valley is another district which remains cut-off from rest of the State for a long duration in the rainy season.

Information and Communication Technology (ICT) is one of the key drivers of faster and inclusive growth in the Coun-

ICT INITIATIVES

Over the years, various initiatives have been taken up by the Government to foster innovation, improve delivery of e-Services and bring about change in the way business is conducted and the way the Government of Arunachal works. National Informatics Centre (NIC) continues to play a key role in the delivery of citizen centric services in all these initiatives.



e-Office workshop for Hon'ble Chief Minister, Cabinet Ministers & Parliamentary Secretaries

ACHIEVEMENTS

The NIC district centres are providing e-Government support to the District administration despite several challenges of infrastructure, electricity and manpower front.

The NIC West Kameng District Centre has been rendering praiseworthy services for which the Government presented a Silver Medal to the DIO on the occasion of 68th Republic Day. Some of the applications which are running in the District are:

Jan Suvidha

• Identity Cards issued:	2,172
• ILP (Permanent) issued:	21,722
• ILP (Temporary) issued:	2,965
• PRC issued:	3,329
• ST Certificates issued:	4,658
• TRC-A (Govt.) issued:	107

• TRC-B (Business) issued:	34
----------------------------	----

• TRC (Other) issued:	23
-----------------------	----

Sarathi/ Vahan Project

• Sarathi:	17,929 records
• Vahan:	3,762 records

Tizarath Project

• Licenses issued:	101
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e-Swasthaya Project

• Registered Patients:	1,30,575
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Marriage Registration

• Certificates issued:	718
------------------------	-----

NIC NETWORK & OTHER SERVICES

• **NICNET:** In the State Capital there are around 2,526 government users covering different departments of the Government of Arunachal. At the district level, there are around 1,090 government users of

NICNET. Wi-Max/ LL connectivity has been provided to the Governor Secretariat, Chief Minister's residential office, Guwahati High Court Permanent Bench, CEO, Food Corporation of India, Food and Civil Supplies Department besides many others. Services running on the net include:

- Video Conference Services
- Web and Cloud Services
- Data Centre Services
- Training and Capacity Building in ICT
- Consultancy Services

• **Email Services:** More than 2,000 email accounts have been created for government officers and employees so far. The Quick-SMS service integrated with the NIC eMail is being used by many departments for official purpose.

• **National Knowledge Network (NKN)** having Giga-range bandwidth has been providing value-added services to several premier educational institutions located in the capital city of the State.

NIC SOFTWARE SERVICES

IMPLEMENTED/ BEING IMPLEMENTED

(Abbreviation: G-Government, C- Citizens, E- Employees, B- Business, I- Institutes)

- Grievances & Redressal- **CPGRAMS** (G2C)
- Payroll System (G2G)
- GPF Accounting System (G2G)
- Online GPF (G2E)
- NPS Accounting System (G2G)
- DBT State Portal (G2C)
- Commercial Tax- **ArunTax** (G2B)
- Performance Appraisal- **SPARROW** (G2E)



Status presentation on e-Governance and Challenges by SIO to the Chief Secretary, GoAR



TreasuryNet Project: Treasury Office, Itanagar

- Sarathi/ Vahan (G2C)
- Treasury Management System (G2C)
- Paperless Office- *e-Office* (G2G)
- Arms License Information System *ALIS* (G2C)
- e-Procurement System (G2B)
- e-District Services through Serviceplus Framework (G2C)
- Mid-Day Meal (MDM) Monitoring system (G2C)
- Jan Suvidha (G2C)
- Jeevan Pramaan (G2C)
- National Scholarships Project (G2C2I)
- Standardized District Portal Platform Project (G2C)
- Mother & Child Tracking Project (G2C)



Jan-Suvidha Centre (Bomdila), West Kameng District

- Civil Secretariat WLAN (G2E2C)

INITIATED

- DM Dashboard (G2C)
- Departmental Portal (G2C)
- Land Records (G2C)
- Human Resource Management System *e-HRMS* (G2G)
- e-Hospital (G2C)
- Dynamic website of Disaster Management Department (G2C)

BOTTLENECKS AND CHALLENGES

Various stakeholders including NIC have been working for enhancement in ICT based e-Governance services at various levels, but following are some of challenges to be addressed.

- Non-availability of reliable power supply across the State
- Lack of vendor participation
- Acute shortage of office manpower
- Unreliable Internet and mobile connectivity in some of the district headquarters and various remote areas
- Poor road communication
- Communication gap among departments
- Various departments/ organizations are currently not at the complementing levels of e-preparedness
- Non-existence of SWAN and State Data Centre

SUGGESTIONS AND WAY FORWARD

Inclusiveness would have to be one of the critical elements in the overall strategy of all Government programmes. e-accessibility and e-competencies using ICT would be vital for improving efficiency of services for better health, education, livelihood and other essential services. Notwithstanding the difficult terrain, the use of ICT is slowly becoming a universal and intrinsic part of people's behaviour, social networks, business practices, government activities and service delivery in the State.

The State Government is taking a big leap to leverage ICT to achieve '*Simple, Moral, Accountable, Responsive and Transparent*' (SMART) governance. Following are the points of action:

- Create a robust IT policy for the State
- Ensure adequate and sustained budgetary support for e-Governance projects/ initiatives
- Establish a high-speed communication network with multiple redundancy options, connecting all district headquarters, sub-division offices and beyond
- Ensure stable and reliable power supply. Multiple power supply options (solar/ genset/ hydropower) shall help in better and uninterrupted delivery of e-Services
- Incubate and nurture ICT skillsets of citizens for readiness to reap benefit from e-Governance services
- Replicate successful e-Government initiatives of other parts of the Country
- Ensure mass acceptance of delivery of Government services using ICT instead of delivering services manually

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TAMIL NADU State

Pursuing Excellence in e-Governance through Open Source Technology for ICT Solutions

Edited by
R. GAYATRI

The e-Governance projects are not only making the lives of the citizen easier by taking government services to their doorsteps, but have also made the administration quick, responsive, transparent, hassle-free, and easily accessible. With the State Government advising all Departments to prefer Open Source Software, almost all the projects are developed using Open Source Technologies.

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NIC has been instrumental in architecting and implementing various e-Governance projects in the State with an aim to leverage IT for transparency and better governance. NIC, Tamil Nadu has partnered with the State Government in its endeavour to automate the government processes and reach out to the citizens using the latest trends and technologies in ICT.

SOFTWARE PROJECTS AT STATE LEVEL

e-DISTRICT PROJECT

e-District has been envisaged by Government of Tamil Nadu as automation of workflow and internal processes of District Administration with the possibility of seamless integration of various departments including Revenue, Adi Dravidar & Tribal Welfare, BC and MBC welfare, District Social Welfare etc. for providing services through Common Service Centres (CSC) to the citizens. Some of the key projects in e-district are:

- **Revenue**

Citizens can now apply online through CSCs for 5 Revenue Certificates through this application with authentication and authorisation at different levels of the State Government. Biometric authentication is enabled through SRDH for more than 12k CSCs. 2 Crore individuals have been registered, 2.56 Crore digitally signed certificates with 2d barcode are issued through CSCs. 30 Lakh tiny URLs have been sent over SMS.

- **Scholarship**

Web based system to provide financial assistance to the poor and meritorious students belonging to BC/ MBC and SC/



“

The excellent technical support and expertise of NIC, Delhi & NIC, Tamil Nadu has undoubtedly been one of the key ingredients in the successful implementation of CCTNS in Tamil Nadu. Thanks to NIC, apart from the basic implementation of the project, many online services like Downloading of Road Accident Documents by Victims, Courts & Insurance Companies, Lost Document Report, SMS service for Citizens & Officers, Online Complaint Registration, Vehicle Status etc. falling in different delivery models like G2G, G2B & G2C have been launched by Tamil Nadu Police. Needless to say, the role of NIC in facilitating TN Police in its efforts to deliver efficient & effective services on e-governance platform is commendable.

SEEMA AGRAWAL
ADGP
State Crime Records Bureau (SCRB)

”

ST/ SSC communities to enable them to pursue education. Services offered are:

- Issuance of Post Matric Scholarships
- Educational Assistance to the students in Professional Courses (Under Graduates only)
- Graduates (Under Graduate and Post

Graduate)

- Polytechnic Students (Government and Government- Aided)
- Government of India Post Matric Scholarship for SC/ ST Students
- State Post Matric for SC converted to Christian Students
- Free Education upto Degree Level (Arts & Science)/ PG Level (Women) (Arts & Science)

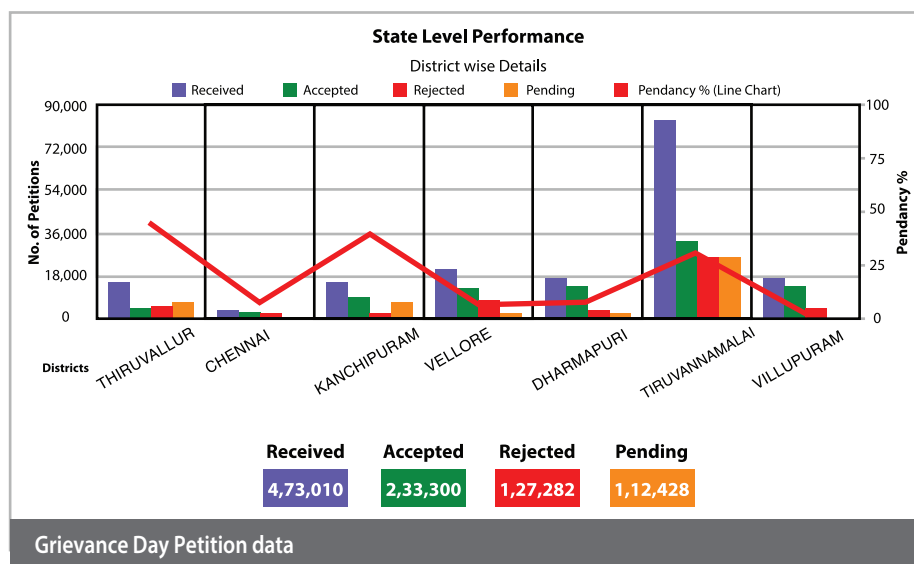
Students can file fresh applications for Scholarship or renew online through their respective Institutions. Funds are transferred to the Beneficiaries electronically.

• Revenue Courts

Web based System to monitor the file disputes in Tenancy Laws Cases/ Mutation Appeal Cases covering both Fresh and Appeal Cases with major functionalities like Case Filing, updation of Cases, recording of Daily Proceedings, Cause List generation and scanning/ uploading of Judgment. Daily Cause List, Case Diary and summary of Cases (pending/ disposal) are generated.

• Social Welfare

Workflow based system for end-to-end processing of applications submitted by



Citizens through CSCs for 7 Schemes of the Social Welfare department.

• Grievance Day Petition

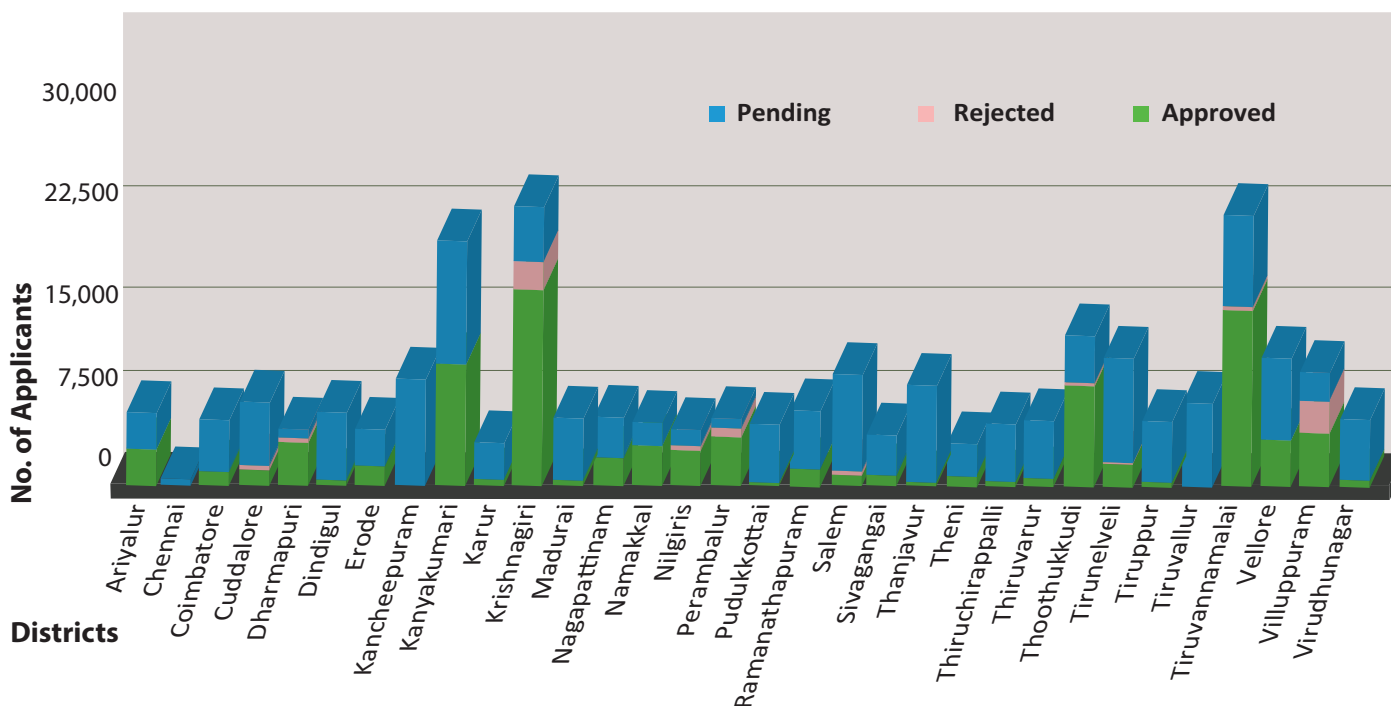
It is a Petition Processing Portal that facilitates the public to submit Grievance Petitions and to view the status in three modes, viz., Collectorate Counters, CSCs, and Online. Besides, it facilitates the concerned officers of different Departments at multiple levels of offices to process the petitions and the Senior Officers to monitor the process. It is a generic

product and can be customized/ reused by any Department / Organization.

TAMILNILAM

Web Based TAMILNILAM (Tamil Nadu Information system on Land Administration and Management) is aimed to modernize management of Land Records, minimize scope of land/ property disputes, and enhance transparency in the Land Records maintenance system.

Citizens can file application through



District-wise Marriage Assistance Schemes status

Select	Sl.No	Print	Application Id	Applicant name	Village Name	Patta No
View	1	-	2017/0103/20/017999	Chandra	Adippuliyur(034)	-
View	2	-	2017/0103/20/018496	Renganathan	Kalyur(056)	-
View	3	-	2017/0103/20/018829	Kamara	Melaramanethi(026)	-
View	4	-	2017/0103/20/020056	Rahamathullah	Manavalanallur(022)	-
View	5	-	2017/0103/20/020074	Selvi	Nelikkuppall(053)	-

Department of Revenue website

Documents for processing Form-6 details. Citizens can view/ print documents like Record of Rights, copy of A-Register, FMB. 21+ lakh Chitta and 14+ lakh A-Register Extracts have been viewed during December 2017. 5,000 Patta transfers are done daily on an average through this application.

CRIME & CRIMINAL TRACKING NETWORK & SYSTEMS (CCTNS)

CCTNS provides end-to-end solution for all the Police Stations, from registering a case (FIR), Investigation of the case to its disposal with generation of all Integrated Investigation Forms (IIF). It also provides automated solution for all the administrative activities of the Police Stations related with Crime and Criminal including Special Units.

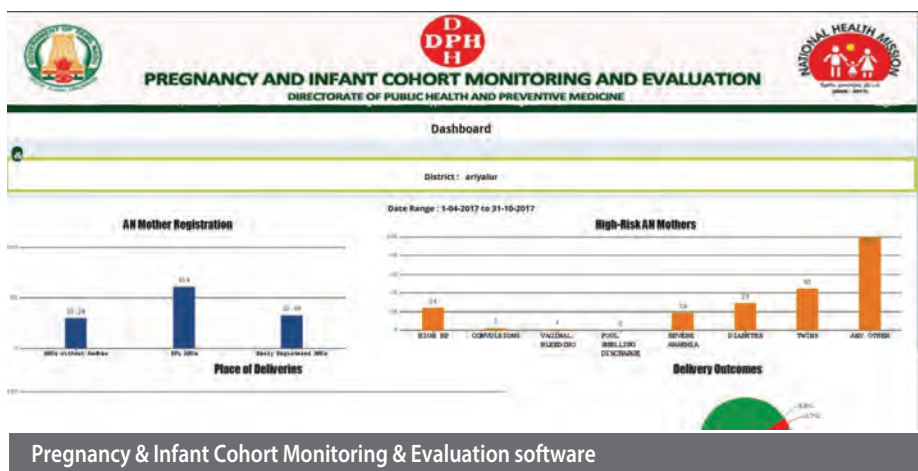
Data from all Police Stations are replicated to the Central Server at State level for data dissemination to higher officials. Tamil Nadu is the only State where 100% Police Stations are covered with this hybrid solution.

Review reports for all officials from the Police Station to State Director General (DGP) can be generated from the Portal (<http://eservices.tnpolice.gov.in>). State level search of any criminal or crime can be done. It provides G2C and G2B services (both mobile and web services) like sharing of road accident case documents, etc, with payment gateway integration (paygov).

Data is shared with the national data base in the "Central - Core Application Software (CAS)" format of National Crime Records Bureau (NCRB) and also with insurance agencies & Motor Vehicle Accident Cases Tribunal Courts.

It is being implemented in all 1,913 Police Stations including Special Units. About 64 lakh First Information Reports, 24 lakh Community Service Registers, 28 lakh motor vehicle petty cases and 82,000 ordinary petty cases are registered in the State since 2013. More than 4,000 Officers, 21 Insurance Companies and 200+ Motor Vehicle Accident Tribunal Court Officials are using the portal. 206 vehicles traced, 346 missing persons matched with un-Identified dead bodies,

Tamil Nadu Police website



CSCs for Patta Transfer/ Sub division along with requisite backend processing. Chitta and A-Register Extracts are generated automatically and issued. Orders are digitally signed by Approving Authority and generated with 2D Barcode. Applicants are informed the status of the appli-

cation at various stages through SMS Alerts.

The system is integrated with spatial-data provided by CollabLand for generating Field Measurement Book. It is also integrated with System for Registration of



Launch of Online Filing of Plan Permission Application (PPA) for Chennai Metropolitan Development Authority (CMDA) by the Hon'ble Chief Minister of Tamil Nadu on the 11th October, 2017

39 missing persons traced, 117 NGO home resident persons united with families, 931 Passports rejected, 1,579 Antecedents found through this portal during this year.

PREGNANCY & INFANT COHORT MONITORING AND EVALUATION SOFTWARE (PICME) 2.0

PICME 2.0 has been implemented for tracking of health follow-up services to pregnant women & infants, and handling allotment and disbursement of funds under TN Government's Maternity Benefit Scheme to eligible mothers. It meets requirements of the new Reproductive Child Health (RCH) format of MoHFW, GoI for Mother & Child Tracking.

It is integrated with SRDH Aadhaar Biometric Authentication to ensure

payment to genuine mothers. It is also integrated with the Civil Registration System. SMS alerts in Tamil are sent to Village head nurses/ mothers for intimation of Antenatal Care (ANC)-due, Expected Date of Delivery (EDD), Post Natal Care (PNC)- due, immunization-due, etc.

RURAL DEVELOPMENT PROJECTS

VILLAGE PANCHAYAT ELECTRICITY CONSUMPTION MONITORING & ANALYSIS SYSTEM

This system monitors the payment of Electricity Bills on time to Tamil Nadu Electricity Board, Misuse/ Overuse of Electricity, to control the Electricity Consumption, to identify water starving habitation based on the electricity consumed by a motor attached to a bore well/ water source, over use of water by Village Panchayats etc. Daily reports for State, District & Block level users about

new bills and bills pending for more than 60 days which attract penalty are generated. Over use of electricity is analysed.

The system has improved the efficiency in electricity consumption and resulted in cost saving of about Rs. 300 Crores per year. It is implemented in 12,524 Village Panchayats of Tamil Nadu.

LED LIGHTS MONITORING SYSTEM

This System monitors replacement of old type street lights to LED lights to reduce electricity consumption. It has facility to monitor purchase, dispatch, installation and payment to vendors. Each LED light pole is attached to electricity meter which monitors the usage.

State, District and Block level users monitor various stages of implementation. Bills are paid to vendors by Directorate of Rural Development after installation of LED lights in villages. Capturing of Global Positioning System (GPS)



Visitors Management System for Raj Bhavan, Chennai successfully launched by the Hon'ble Governor of Tamil Nadu on the 19th April, 2017

coordinates of poles is planned through mobile application.

ONLINE FILING OF PLAN PERMISSION APPLICATION (PPA) FOR CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY (CMDA)

The system provides facility for the public to apply for Building Plan Permission by making online payment. The Applicant need not visit CMDA for submitting his/ her Plan Permission Application. Reports like Acknowledgement, Inspection Report, Development Charges Notification and Plan Approval are made available in the web for the Applicant to download. The processing is transparent and applicant can keep track of the processing Status online in addition to automatic alerts through SMS/ Email.

It has been successfully launched by the Hon'ble Chief Minister of Tamil Nadu on the 11th October 2017.

INTEGRATED APPLICATION FOR SPORTS DEVELOPMENT AUTHORITY OF TAMIL NADU

This Web application for the Sports Development Authority of Tamil Nadu (Youth Welfare and Sports Development Department) covers the following major activities -

- Building a Repository of Sports-persons in all disciplines, their performances, rankings, scores and grades
- Details of Coaches for all Sports, their performances, achievements, coaching methodologies and planning
- All major Competitions and Sporting-events conducted in the State, along with Results and performance of top-finishers/ teams
- Sporting Infrastructure and facilities in the State
- Monitoring and Implementation of Schemes/ Beneficiaries details
- Online Services for Booking of Stadiums for conducting events
- Online Membership for usage of facilities in Stadiums
- Computerization of all Sports-Hostels including Admission of Students, Schooling, Coaching, Inventory and day-to-day Administrative activities



- Dashboard service for each level in the SDAT
- SMS based alerts sent to stakeholders.

Based on the performances and talent pool available, teams are proposed for national or international level competitions and coaches are proposed for deputation or delegation for specific sporting assignments.

It is the first of its kind amongst the States in India. Online rendering of services in the sports sector is being introduced in the state which can be replicated in other States.

VISITORS MANAGEMENT SYSTEM FOR RAJ BHAVAN, CHENNAI

This web application customised by the NIC Cell of Rashtrapati Bhavan, New Delhi and implemented as part of the website of Raj Bhavan Chennai, helps the public to book admission tickets for visiting the Raj Bhavan Chennai during weekends. Online payment is enabled and confirmation is sent through SMS/ Email. It has been successfully launched by the Hon'ble Governor of Tamil Nadu on the 19th April 2017.

NATIONAL HEALTH MISSION (NHM)

NHM envisages achievement of universal access to equitable, affordable & quality health-care services that are accountable and responsive to the needs of people in rural and urban areas. The following mobile Apps have been implemented:

ORAL PRE-CANCER MOBILE APP FOR TAMIL NADU

- Mobile App developed to conduct survey on Oral Cancer pre-screening. The survey is being conducted door to door in villages and the details about the suspected patients and photo of the lesion inside mouth are captured and transmitted.

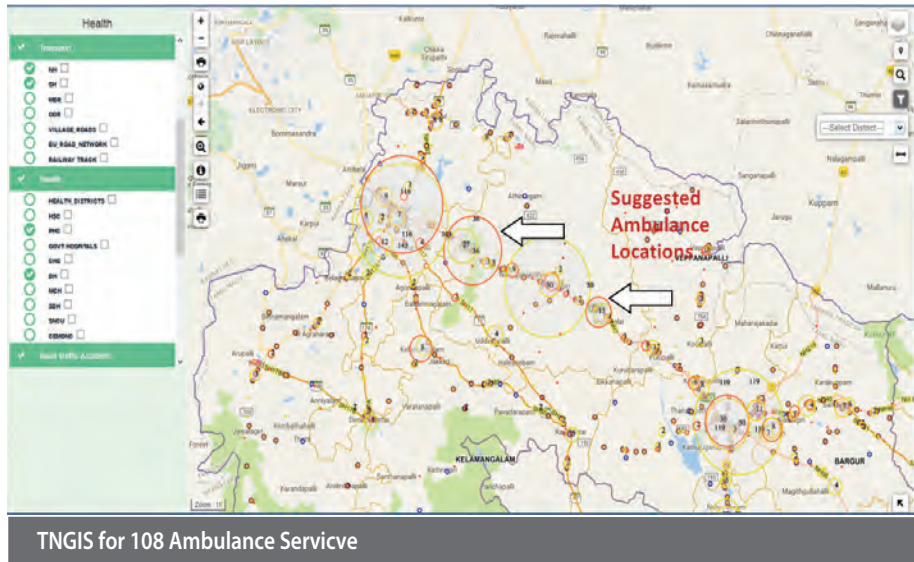
- 16+ lakh citizens have been surveyed (in 36+ lakh families in 60,000+ villages in 1,600+ PHCs). 9,900+ Photos of oral lesion inside the mouth of 13,900+ suspected cases were uploaded using the Mobile App.

MOBILE APP FOR NPCDCS, TAMIL NADU

Mobile App developed for treatment and follow-up of patients under National Programme for Prevention and Control of Cancer, Diabetics and Cardiovascular Disease and Stroke (NPCDCS).

STATE PORTAL OF GOVT. OF TAMIL NADU

State Portal provides a single window access to Information & Services at all levels of State and District Administration. This portal, developed using Drupal, provides comprehensive, accurate, and reliable information from the respective Departments using a workflow system; and it is a one stop source of information about Tamil Nadu and its various facets. Information in the Portal has been well classified into distinct modules, which are interlinked at relevant places to provide the



visitor with a holistic view.

The portal is developed using Responsive Web Design technology. It is viewed in over 165 countries through various devices.

TNGIS WEB PLATFORM AS STATE SPATIAL DATA INFRASTRUCTURE (SSDI)

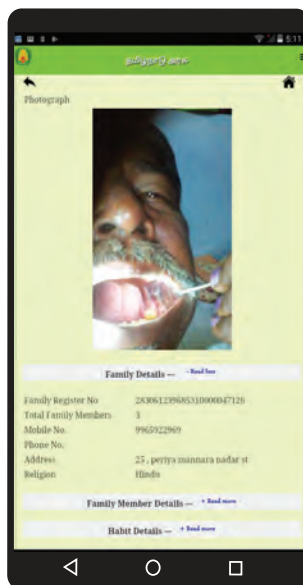
(<http://tngis.tn.gov.in>)

Web based GIS for Tamil Nadu using open source software is implemented in line with National Spatial Data Infrastructure (NSDI) framework. Spatial data repository (300+ layers at 1:50,000 scale, WGS-84 Datum, TM Projection) created

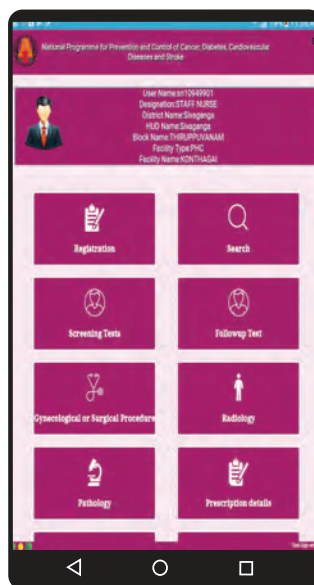
by collating from various Departments, are being used by Public (2,400+) and Departmental/ District (400+) users across the State. The generic reusable application uses Open Geospatial Consortium (OGC) compliant Geo-spatial web services for geographic representation of data from any platform/ technology. TNGIS has enabled the analysis of data related to schooling access and road-accidents.

NATIONAL KNOWLEDGE NETWORK (NKN)

Chennai is one of Super Core PoPs of NKN, which is a high speed, multi Gigabit Data Network. 125 Research & Educational Institutions are connected to NKN Chennai PoP.



Oral Pre-Cancer Mobile App for Tamil Nadu



Mobile App for NPCCDS Tamil Nadu

CENTRAL PROJECTS

• Jeevan Pramaan

Jeevan Pramaan is implemented in Offices such as Defence Pension Disbursement Offices (DPDO) in Chennai & Vellore, Army Head Quarters, Defence Canteen Stores, Chennai Port Trust and in all district treasuries and Sub Treasuries. Pensioners of State Government are also using Jeevan Pramaan.

• Aadhaar Enabled Biometric Attendance System (AEBAS)

AEBAS is implemented in 7 State Government Departments including IT Department, School Education Department, Department of Treasuries & Accounts, Perambalur Collectorate, Trichy City Corporation, Tamil Nadu e-Governance Agency (TNeGA), National Health Mission, Chennai and over 250 Central Government Offices.

AWARDS

- SKOCH - Order of Merit 2017 for TamilNILAM
- SAPPN Award 2017 - GePNIC bags Innovation Award
- GeM Award 2017 for GePNIC
- Digital India Award 2016 - Gold icon for Comprehensive Web Presence - State
- CSI Nihilent Award 2016 for GePNIC
- Mobile for Good Award 2016 for Oral Pre-Cancer mobile App
- SKOCH Award 2015 for GePNIC
- eLets Knowledge Exchange Award 2015 for Mobility Platform Services
- Webratna Award 2014 - Gold Icon for use of innovative technology for e-Services of Commercial Taxes
- Webratna Award 2014 - Gold icon for Comprehensive Web Presence - State
- eIndia 2014 Award for best implementation of eGov Application for MCL
- eIndia 2014 Award under Innovation in Governance for Mobility Platform Services

For further information, please contact:

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Chennai, TAMIL NADU

Email: sio.tn@nic.in
Phone: 044-24917850

SEONI District, Madhya Pradesh

The Digitally Empowered Mowgli Land of India offers a Bouquet of ICT based Services for Citizens

Since its inception in the District, NIC-Seoni District Centre has been providing various solutions with State-of-the-Art technology using latest ICT infrastructure to the District administration. The information, data and technical expertise clubbed with innovative ideas provided by the Centre plays a significant role in better planning and decision making for public service delivery.

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YOGENDRA SINGH THAKUR
Scientist-B & ADIO
thakur.yogendra@nic.in

The tribal household dominated district, Seoni was formed in the year 1956. The name Seoni has been originated from the word "*Seona*" (or *gudina arborea*), a tree species commonly found in this land.

Seoni is situated on a narrow, North-South section of Satpura plateau and lies between the latitude 21 36' & 22 57' North and longitude 79 19' & 80 17' East on National Highway Number-7 (Kanyakumari - Banaras) which connects the District from north to south.

Bainganga, one of the cleanest rivers of MP and worshipped by the agrarian population originates from Seoni (Mundara) where Sanjay Sarovar, the biggest mud dam of Asia is located. The dam is a primary source of water for agriculture and drinking purpose in the district. The Pench National Park situated Seoni constitutes the core of the tiger reserves and is a significant natural habitat of central India. The region's flora and fauna has been prominently described in many of the popular wildlife books. The 'Jungle Book' by Rudyard Kipling is one among them which portrays the panorama of nature's abundance of Seoni having 37% green forest area.

ICT PENETRATION IN THE DISTRICT TO FACILITATE THE COMMON MAN

NICNET AND VIDEO CONFERENCE SERVICES

NIC-Seoni has been pioneering in the implementation of ICT solutions at various Departments and Offices in Seoni to support the execution of government works and enhancing the efficiency and service delivery on a daily basis. Process automation, video conferencing and constant monitoring through CCTV IP based camera with DVR installed in all important offices which include Collector



“

The state of the art technology, latest ICT infrastructure of NIC Seoni District Centre along with its sincere, hardworking and skilled officers are key assets of the District administration. The information, data and technical expertise with innovative ideas have always played a key role in better planning and decision making in order to deliver public services seamlessly. I wish all the success for the future assignments of NIC District Centre.

GOPAL CHANDRA DAD, IAS
Collector & District Magistrate
Seoni

”

Chamber are carried out to improve the public service capabilities. 34 Mbps BSNL Lease line OFC connectivity has been provided at NIC District Centre. All important sections of Collectorate and Tahsil office are equipped with new computer systems and connected with



Desktop VC is being used extensively to reduce transportation of the official from block to district HQ



Hon'ble Agriculture Minister of MP addressing from seoni VC room after crop damage due to hailstone rain and storm

UPS and printers for efficient service delivery. OFC based LAN with NICNET has been established at Collectorate Campus connecting all sections of the Collectorate, Lok Seva Kendras, S.P. Office and office of SDM, Tehsil, Forest Department etc. Distantly located CCF office has been connected with NIC-Seoni through BSNL 2MBPS lease line.

Connectivity is most important aspect in implementation of large online application software such as SSSM Portal, E-uparjan, E-district, Panchayat Darpan and MNREGA across the District for better G2C services delivery. An efficient network having latest ICT infrastructure NICNET integration with SWAN (State Wide Area Network) covering District HQ and Block HQ is in place. Further, a

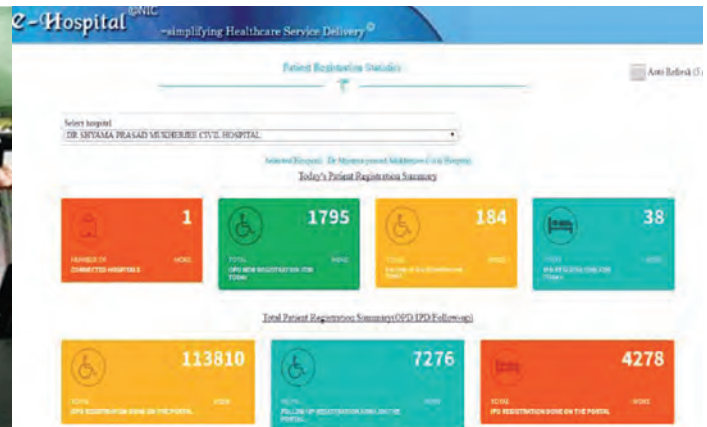
wider horizontal connectivity has been provided to Tehsil & Lok Seva Kendra, Janpad Office, District Treasury & Sub Treasuries, Border Check Post and Commercial Tax Office. The robust connectivity in the District has brought enormous changes in the District HQ and Block HQ official level interaction. A seamless desktop VC (Point to Point/Multi Point) facilitation helps in day to day VC for faster communication for monitoring of government schemes. The Video Conferencing (VC), Internet and Email services provided by NIC are the pivotal means of communications in the District administration. Currently 2 video conferencing studios are fully functional for connecting with state government head quarters to district administration to multi departmental Video Conferencing simultaneously.

IMPORTANT PROJECTS IMPLEMENTATION AND INITIATIVES

- District Hospital Seoni is the first district in Madhya Pradesh where the e-Hospital@NIC application has been implemented.
- IVFRT Foreigners Registration & Tracking form C for the tourist coming to visit the National Pench Park Seoni tourist staying at resorts. IVFRT other modules are running smoothly in FRO-cum-SP Office.
- Training on Digital Payments and cashless transactions attended by Collector & DM, Lead Bank Manager(LDM). DIO explained various modes of digital payments available for cashless transactions. Training & awareness programmes



Shri Gopal Chandra Das, Collector & DM visiting District Hospital



e-Hospital Dashboard with the daily patient registration summary



The IVFRT workshop attended by Collector, SP, Director Pech, CEOZP and all Resort/ Hotel owners at Pech National Park



Training and awareness programmes on Digital Payments were organized at Block, School and College levels in the District

were organized at Block school college levels in the District with active support of CSCs, banks, financial institutions and officials.

SAMAGRA SAMAJIK SURKASHA MISSION(SSSM) PORTAL

Hon'ble Chief Minister, Shri Shivraj Singh Chauhan inaugurated 'Online Sanctioning of Social Pensions Proposal' prepared by block level authorities/ users under various Government Social Security Pension Schemes through www.sssm.nic.in portal



Hon'ble Chief Minister, Shri Shivraj Singh Chauhan viewing SSSM portal during inauguration

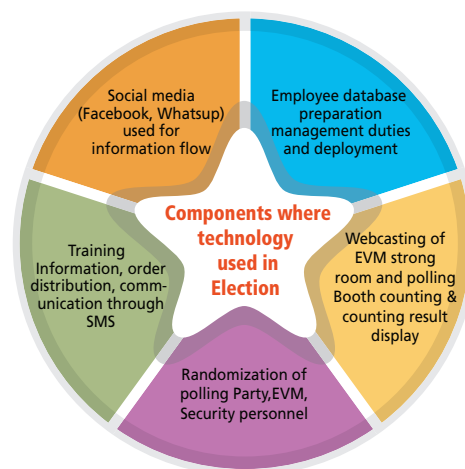
GENERAL ELECTION (ASSEMBLY/ PARLIAMENT ELECTION) AND URBAN, RURAL LOCAL ELECTIONS

ICT is the greatest hope for adopting transparency in the largest democracy and a diversified political culture like India. We use technology supports in employee management, training management, material distribution, security of polling booths & EVMs, deployment of police personnel and counting and results declaration to district election office.

CENTRAL, STATE LEVEL PROJECT IMPLEMENTED BY NIC DIC SEONI

- MyGov, Digital Locker, e-Courts
- Agricultural Marketing Information System (AGMARKNET)
- National Animal Disease Reporting System (NADRS)
- Track the missing Child under ICPS/ Juvenile Justice
- MGNREGS, CCTNS, Gramoday app developed by NIC (HQ)

- Biometric Attendance System (BAS) in NIC, Zila Panchayat, Collectorate Seoni etc.
- National Database of Arms Licences (NDAL)
- SPARROW for IAS, IPS, IFS ,SASMP, SPS MP
- NPR portal, PMAY-Grameen,
- Swachh Bharat Mission (SBM)
- Soil Health Card Portal, Local Government Directory
- e-Scholarship Portal 2.0



- e-Crop Cutting Experiments Information System
- CM Grameen Awaas Mission
- PDS systems using POS,
- Gram Uday se Bharat Uday portal
- Mid-Day Meal software at zila panchayat
- **e-Khanij:** Information System for Mineral Resources Department
- Higher education portal
- Bhu-Abhilekh, Bhu-Naksha
- Samadhan Online (Public Grievances Redressal)
- Panchayat Darpan Portal
- Vidhan Sabha Questions Reply Management System (e-Uttar)
- Swachh MP Portal
- E-Uparjan and Bhavantar Bhugtaan Yojna online Software
- MPEDISRICT Portal



Receiving the Best e-District Runner up, DST MP IT Awards from the Hon'ble Chief Minister

IMPORTANT DISTRICT LEVEL INITIATIVES

SAADHIKAR 2.0

Online application software was developed on SAMAGRA platform for surveying service delivery of 6 departments to the doorstep of all beneficiaries and entries were done for 3,61,000 households. The application was used during the 45 days long GRAMODAY Campaign 2016, it can be used every year for assessment of service delivery in the district.

TEERTH-DARSHAN YATREE RANDOMIZATION

This has been developed to select pilgrims using randomization techniques based on criteria given in scheme notification for Mukhyamantri Teerth-Darshan Yojna in a transparent manner. It keeps track of beneficiary pilgrims and also generate various reports for office and public use.

PROGRESS MONITORING DASHBOARD

The NIC Centre has designed and devel-

Collector Monitoring System
SEONI - MADHYA PRADESH

Home(रैज) | Data Entry(डेटा एंट्री) | Updates(अपडेट्स) | Reports(रिपोर्ट्स) | कर्मचारियों - कनेक्टर्स - सेईओ कॉन्टैक्ट्स | नमोडा सेवा मिशन | ग्राम उदय से भारत उदय अभियान 2017 | सुशोभीकरण एवं जल स्वच्छता संघर्ष

सुगत सुशोभीकरण 2017 | Suggestion (सुझाव) | Announcements(अनंशमेंट्स) | Sitemap

Home(रैज)

जिले में विभिन्न योजनाओं के अंतर्गत कार्यों की समीक्षा करने प्रचलित प्रक्रिया द्वारा जानकारी एकत्रित की जाती है जिसके संकलन एवं सभी संबंधित अधिकारियों के मध्य साझा की जाती है।

जिला कलेक्टर श्री धनराज एस. द्वारा प्रशासनिक कार्यों में तेजी लाने के लिये समय-समय पर निर्देश दिये गये हैं। इन्हीं निर्देशों के तहत एन.आई.सी. सिवनी द्वारा गूगल के प्रचलित टूल्स एवं सॉफ्टवेयरों की मदद से अल्पावधि में शून्य लागत पर वेबसाइट का निर्माण किया गया है जिसमें सभी प्रकार के महत्वपूर्ण कार्यों की जानकारी संकलित करने एवं रिपोर्ट उपलब्ध करायी गयी है। गूगल क्लाउड पर अभी तक निम्नलिखित कार्यों की जानकारी संकलित किये जाने का प्रावधान किया गया है।

- जिला अधिकारियों के भ्रमण प्रतिवेदन
- ग्राम पंचायतों के प्रगतिरत/अपूर्ण कार्यों की जानकारी
- ग्रामवासियों के सुनिश्चकण कार्यों की मोनिटोरिंग

Progress Monitoring Dashboard

oped a menu driven Dashboard for monitoring weekly progress of work done by field officers of Agriculture, Revenue, Rural Development, Women and child development, Social Justice etc. Graphical analysis reports were prepared for faster adaptability among users, mobile compatibility and fast development with easy on-boarding.

E-GOVERNANCE AWARDS AND APPRECIATION

NIC District Centre, Seoni has been appreciated for its exemplary work on various occasions and has received many prestigious award in past and the endeavour to add more achievements is continue.

DST MP IT AWARDS

- Best E-govern District 2007-08
- Best E-govern District 2009-10
- Best Project IT for Masses 2010-11
- Best E-govern District 2012-13

E-WORLD AWARD

- Best Jury Award for e-District initiative 2011

WAY FORWARD

It has been felt that the services of the Government should be provided in a consistently gradual process. The Seoni District is pioneering with e-Governance activities and aiming at providing ICT enabled better citizen centred services. Investment of time and effort for e-governance activities with a long term objective would be quite beneficial to the various stakeholders including Departments and citizens. Constantly improving the ICT infrastructure, besides keeping pace with the advancement in the technology would be the goal of the District Centre of NIC.

For further information, please contact:

DISTRICT INFORMATICS OFFICER

NIC District Unit
District Collector Office
Seoni, MADHYA PRADESH

Email: mpseo@nic.in
Phone: +07692-223130

TEHRI GARHWAL District

The Beautiful Hilly Area of Uttarakhand Provides relentless ICT based Services to Citizens

Since its inception in the District, NIC-Tehri Garhwal has been involved in various e-Governance activities such as designing, developing and implementing various ICT based solutions for enabling the District administration to provide various e-Governance initiatives. The e-File Tracking System, Aadhaar-enabled Biometric Attendance System, upcoming Health Portal and efficient network connectivity are some among support provided for delivering efficient services by the administration.



SAURAV RATURI
Scientific Officer & DIO
saurav.raturi@nic.in

Tehri Garhwal- NIC has been playing a pivotal role in implementing various eGovernance projects of Central, State and District administration. The services also include NICNET infrastructure with 100 Mbps leased line connectivity, the District Centre provides network connectivity to the various offices under the District administration.

Following are some of the initiatives undertaken and executed successfully.

e-FILE TRACKING SYSTEM

<http://efiletehri.in>

The e-file system is an initiative of District administration, Tehri Garhwal with the support of NIC Tehri Garhwal. The objective of the system is to track the office files easily through the computerized medium. The entire system of this project has been computerized, right from creating the file, its movement and till file disposing.

Various types of file-related reporting can be done through e-file system. At the same time, the public can see the status of his application and the action taken on it through a barcode or file number on their receipt, with a touch screen based information kiosk engaged in the District office premises.

'111' SERVICE

With the active support of NIC Tehri Garhwal, District administration implements 111 services within district Tehri. In this service, people within the district can register their grievances by dialing the number 111. Service is also linked with **Samadhan** portal of Govt. of Uttarakhand through an operator who receive calls and register grievances on **Samadhan** portal. Users can also update their details themselves for the schemes related to various departments. NIC, Tehri Garhwal has provided necessary software for the service and further configured the devices used to deliver the service.



“With the active support of NIC-Tehri Garhwal, District administration has taken several e-Governance initiatives like e-File Tracking System, Aadhaar-enabled Biometric Attendance System and upcoming Health Portal.

For improvement in functioning of administration, I believe that NIC-Tehri Garhwal will continue to support us with their technical expertise and innovations for effective and efficient implementation of ICT projects.

SONIKA, IAS

District Magistrate, Tehri Garhwal”

'555' HEALTH CARE SERVICE

Tehri Garhwal is a district of Uttarakhand with hilly terrain, and in order to overcome the challenges of its people to receive primary healthcare service in an efficient manner, '555' Health Care Services was implemented. '555' is a simple, well structured service delivery mechanism which can provide the healthcare service efficiently by utilizing the existing available recourses. The telecommunication networks widely available to villages were used to provide healthcare service. NIC-Tehri Garhwal

prepares various technical documents for the service such as SOP for 555 health care service. Functional specification documents and support for creating mobile App are also provided.

ELECTION RELATED TASKS

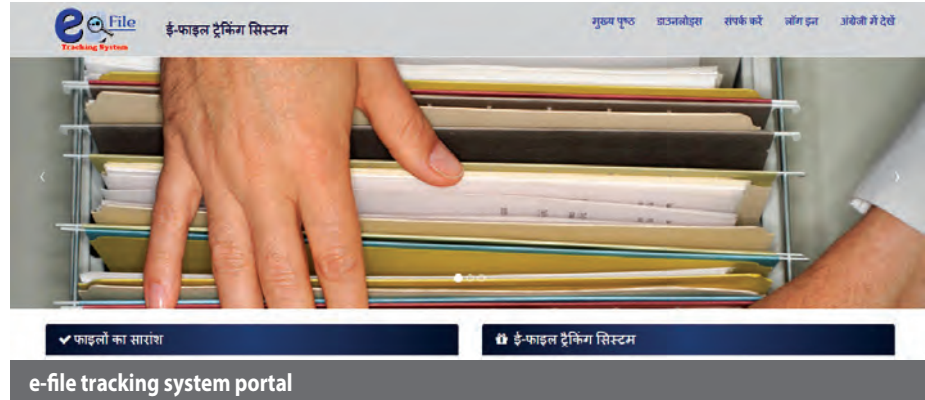
The NIC-Tehri Garhwal team are actively involved during the General election by performing various tasks for the successful election process. It has implemented related projects such as ePDS, EVM Tracking, Genesys, ERO NET, ECI Counting application and Poll day Monitoring System. These include creation of database for polling, counting personnel & EVMs, three stage randomization of polling personnel, counting personnel and EVMs, generating training orders and polling booth orders for polling & counting personnel, nodal authority for counting application and poll day monitoring system.

AADHAAR ENABLED BIOMETRIC ATTENDANCE SYSTEM

NIC District Unit has provided technical support for the implementation of Aadhaar-enabled Biometric Attendance System (BAS). Currently, NIC Tehri Garhwal is implementing BAS at more than 50 departments in Tehri Garhwal. NIC provides technical support for managing 26 BAS portals in the district.

CENTRAL PROJECTS

The District Unit is providing support for managing national level projects such as MNREGA, NADRS, PlanPlus, Action-



soft, LGD, Asset Directory, NDAL, PDS, e-Sparrow, e-Tender and NICNET.

STATE PROJECTS

ICT support provided by the NIC- Tehri Garhwal for the State projects include e-District, Samadhan, Land Records 'Devbhoomi', Social Security pension, SWAN, e-Scholarship, e-Kosh and Computerization of non ZA Khatonies.

SERVICES FOR DISTRICT ADMINISTRATION

Development and maintaining the District website, Video conferencing facilitation and District LAN are some of the important services being provided actively.

CONSULTANCY & IT SUPPORT

NIC Tehri Garhwal provides extensive consultancy services to District Administration. Some of the services in this area are:

- Feasibility study to identify the area's of IT initiatives
- Functional requirement specification document of G2G and G2C services
- Training on IT applications to the user organizations
- Procurement of hardware devices
- Maintenance support with respect to ICT services

HEALTH PORTAL

With the active support of NIC Tehri Garhwal District administration is coming up with a comprehensive Health Portal with an objective of monitoring the NHM schemes. This would have a dashboard for each NHM schemes such as MCTS, TB program, RBSK and IDSP. Dashboard for every schemes is conceptualized to be comprehensive and informative with a number of reports based on various parameters, block wise, different health unit wise. Trends and informative graphs for each of the schemes would also be made available.

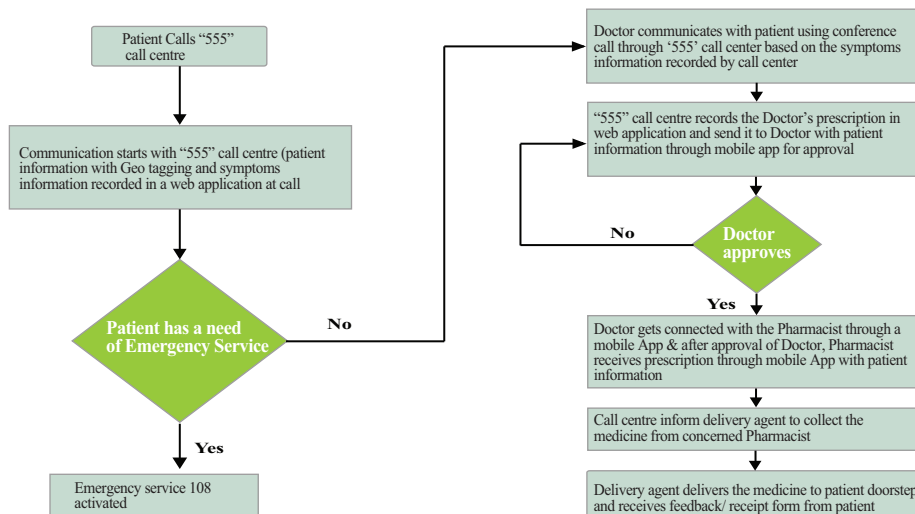
SUMMARY

The NIC-Tehri Garhwal continues its relentless contribution by providing solutions with the use of latest technologies to support the District administration in delivering citizen services in an efficient manner. The team is prepared to take up ambitious and challenging tasks with an aim to provide better services to the people.

For further information, please contact:

DISTRICT INFORMATICS OFFICER
NIC District Unit, Tehri Garhwal
UTTARAKHAND

Email: uateh@nic.in
Phone: 01376-231059, 234101



'555' Health Care Service Flowchart

School Education Portal, Uttarakhand

Focussing on Enabling Transparency and Efficiency in Education System

The Portal developed by NIC Uttarakhand helps Education Department in keeping the large volume of record of teachers and students at single point and therefore enable various stakeholders to access this valuable information online with a single click. The quality points of teachers maintained and generated through this portal has helped Education Department to bring transparency in existing transfer system in the State.

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Geographical spread of Uttarakhand is marked by plains and hills in the south and tough mountainous terrain in the north which defines the demographic pattern. The total geographical area of the state is 53,483 sq.km comprising 13 districts, 2 Divisions (Kumaon and Garhwal) and 95 blocks. Implementation of the state run education system face challenges born out of geographical and demographic complications. To enhance the effectiveness of the education system in vogue, it was conceived by the state Govt. to develop a web based portal which can be used as an integrated platform for the students, teachers, administration, various schemes of school education implemented in the State, citizens and the other stake holders.

With this background a portal named "School Education Portal Uttarakhand" was designed & developed by NIC Uttarakhand and implemented by the School Education Department- Uttarakhand. The portal is available on <http://educationportal.uk.gov.in>. The project was initiated in April 2015. In Uttarakhand Department of education has a unified structure covering elementary and secondary education. The other wings of School Education, Uttarakhand are State council of Education Research and Training (SCERT), Uttarakhand Board of School Education & Exams (UBSE) and District Institutes of Education and Training (DIET).

OBJECTIVES

The School Education Portal for Education Department- Uttarakhand has been conceptualized, designed and developed to ensure single point availability with easy accessibility and transparency of various services of the department up-to school level in the State. The transparent system of transfer and posting of teachers is one of the prime objectives of this



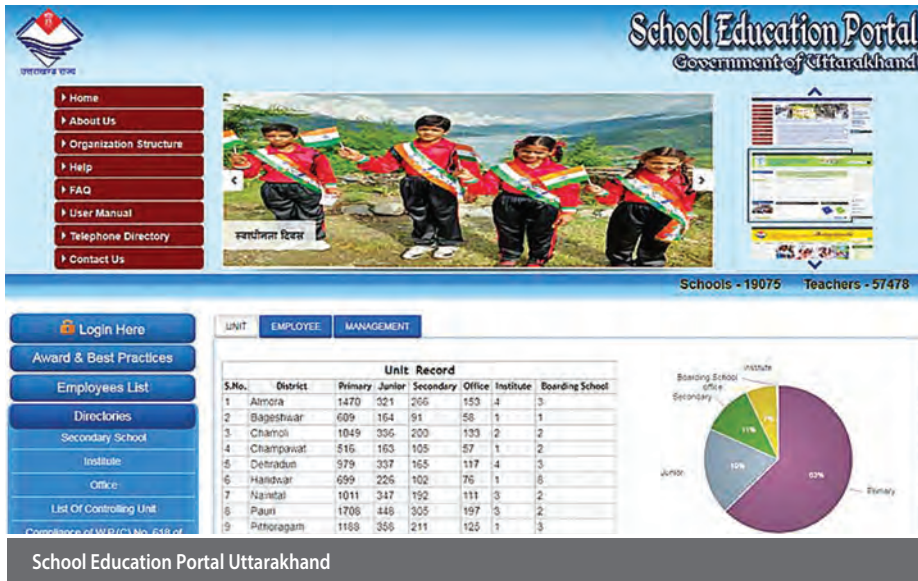
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The Portal developed by NIC Uttarakhand helps Education Department in keeping the large volume of teachers and student record at single point and therefore enable different stakeholders to access this valuable information online with a single click. The quality points of teachers maintained and generated through this portal has helped Education Department to bring transparency in existing transfer system in the State. I hope this portal will bring more efficiency in education system with prime focus on improving quality of school education in Uttarakhand.

Dr. Bhupinder Kaur Aulakh, IAS
Secretary, School Education
Govt. of Uttarakhand

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system. Digitization of enrolment of students for Uttarakhand board exam and automating exam related functions are another major area which department of school education is focusing upon through this portal.



basis of certain parameters i.e. teachers posting period in X(Sugam) and Y(Durgam) category of schools, attendance records of teacher and exam result performance in teacher's main subject in last three years. Online requests for transfer are sought from an individual teacher who is eligible for transfer based on their quality points. After receipt of requests from all the teachers a combined graduation list is generated which is used as the main criteria for transfer in individual counseling of teacher for final transfer.

SCHOOL INSPECTION MODULE

This module is for creating and managing the inspection team, inspection schedules, online filing of reports. The main objective of this module is for keeping school inspection records in digitized form thereby improving the quality of school education in the State.

STUDENT ENROLMENT MODULE

This module captures school-wise basic details of a student such as his/ her personal details, Aadhaar number contact number, subjects etc. The student record is validated with the class-wise student enrolment.

The basic student details are further added with stream-wise subjects detail for students of class 9th and 11th for the

HIGHLIGHTS

HUMAN RESOURCE MANAGEMENT SYSTEM

This module is to manage the Employees and teachers Information like Personal details, educational qualification, joining & posting/ transfer details, trainings attended and promotion details. Other details as per service book of a teacher are also maintained in this module.

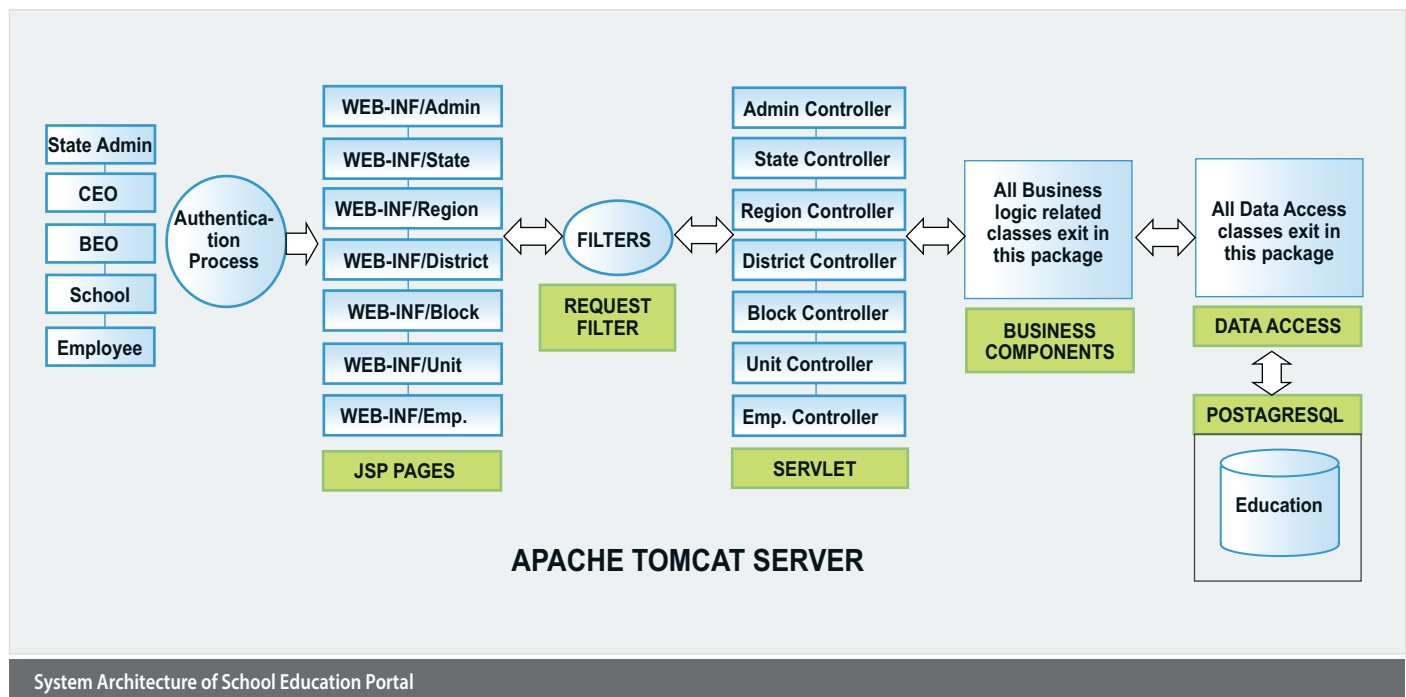
SCHOOL MANAGEMENT SYSTEM

This module captures details of govern-

ment schools like demographic details, infrastructure details, class-wise student enrolment, sanctioned post and school/unit categorization. Every school is categorized based on eleven norms and their sub-norms as prescribed by State Government. On the basis of these norms every school is categorized as X (Sugam) or Y(Durgam).

TEACHERS TRANSFER MODULE

Transfer system is primarily based upon the quality points calculated for the teachers. Quality points are calculated on the





Inauguration of School Education Portal by Hon'ble Chief Minister

purpose of Board Exam Registration. Management schools in the State are also covered under this module. Every school (Government & Management) have been provided user-id and password to enter their student's details.

BACKEND TECHNOLOGY

- **Hosting Infrastructure:**
3 VMS on MEGHRAJ Cloud
- **Language:**
Java
- **RDBMS:**
Postgres SQL
- **Web Server:**
APACHE TOMCAT
- **Framework:**
Java Netbeans
- **Operating System:**
LINUX7

INTENDED BENEFITS

- A powerful tool in the hand of stakeholders for continual improvement of the school education system in public domain. Availability of all information related to school system at one point viz., detail of students, subject-wise teachers, amenities

etc.

- An efficient tool to bring transparency in transfer/ posting policy and its implementation
- Infusing awareness for quality enhancement among the teachers as this portal makes their service data and quality points accessible to them
- A successful implementation of the portal is likely to bring a pervasive change in the quality of education system
- Public (student/ Parents) feedback mechanism about functioning of schools in their areas

FUTURE ROAD MAP

- A Daily Mid-Day-Meal Reporting System through mobile app and SMS for reporting daily real time data for Mid-Day-Meal
- Automation of Uttarakhand Board Exam related activities like online generation of admit cards etc.
- Workflow based online submission of annual performance report by teachers & officials and their assessment
- Development and integration of online module for monitoring daily work performance of identified model schools (Currently two schools identified per

block. Total 190 schools)

- Development of Geo-Tag based mobile App for daily monitoring teachers and student attendance
- Dashboards for administrators and school principals

CORE TEAM

- Capt. Alok Shekhar Tiwari, Director General, Department of School Education Uttarakhand
- Shri R K Kunwar, Director, Department of School Education Uttarakhand
- Shri Mukesh Bahuguna, Administrative Officer (Directorate), Department of School Education- Uttarakhand
- Shri Sunil Tariyal & Shri Manoj Kapkoti, Programmers
- Project Team of NIC- Uttarakhand

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UTTARAKHAND

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Goa's Common Portal for e-Services of Urban Local Bodies

Ensuring Effective & Better Citizen Centric Services

Common Portal for e-Services of Urban Local Bodies is an initiative of the Department of Municipal Administration, Government of Goa and National Informatics Centre, Goa-State Centre. This portal enable the citizens to avail citizen services online in a simplified way, thus eliminating the inconvenience of travelling to various offices and waiting in long queues.



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Technical Director
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With an objective of ensuring effective and enhanced citizen centric services, the need for reaching out to the citizens through a common portal for all Urban Local Bodies (ULB) in the State of Goa was envisaged. This has been a step towards taking the ULBs in the State towards the 'Digital India' goal of our Hon'ble Prime Minister.

The portal, hosted at the URL <https://goaulbservice.gov.in> provides a one stop solution in which the citizens staying within the jurisdiction of the Municipal Corporation/ Council of Goa can make online payment of taxes such as House tax, Trade & Signboard tax and Rental payments, Apply online for new Trade and Signboard licence. One can search and view Birth/ Death certificate, Apply online for correction in Birth/ Death certificate, Submit grievance and view the status of the same. A number of other services and information has also been provided.

The Department of Municipal Administration and National Informatics Centre, Goa State Centre jointly implemented the project in order to empower the citizens and avail the services simply being at home with mere click of a button. This has eliminated the difficulties of citizens to wait in long queues to avail the services.

OBJECTIVE

The aim of the portal is to provide the facility for citizens to make online payments of taxes and submit online forms for the services identified by the Department of Municipal Administration to be delivered online and through Lok Seva Kendras (LSK).

HIGHLIGHTS

The common services delivery portal

provides 17 services for the citizens:

- Online payment of House Tax
- Online payment of Trade & Signboard licence fees
- Online payment of shop rent
- Register a complaint
- Transfer of House Tax
- Submit online application for Trade & Signboard licence
- Search and view Birth certificates
- Correction in Birth certificates
- Search and view Death certificates
- Correction in Death certificates
- Search and view Birth certificates registered at Village Panchayats
- Search and view Death certificates registered at Village Panchayats
- NOC for water/ electricity connection
- Booking of Municipal Halls
- Booking of Night Soil tanker
- Booking of Hearse Van
- Submit application for Income certificate

The portal provides Municipal Council/ Corporation specific information such as the list of elected representatives, important contact details of staff, tax defaulters, active tenders & notifications, council meetings & events and many more. These features can be managed independently by the designated official of the respective council using the content management software module provided in the backend 'Municipal Administration Software' (MAS) application.

BENEFITS TO CITIZENS

- One can make payments of various taxes from the comfort of his/ her home.
- Multiple visits to the Municipal office are avoided.
- Easy access to birth/ death records
- Online correction of birth/ death data



Hon'ble Chief Minister of Goa, Shri Manohar Parrikar, Urban Development Minister, Shri Francis D'Souza, Secretary, Urban Development, Shri Sudhir Mahajan, Director, Municipal Administration, Smt. R. Menaka, ASIO-Goa, Shri K.P. Pariselvan and Shri Alex Kurian, Tech. Director during launch of the portal.

possible

- Can register grievances online
- The Portuguese consulate in Goa and Portugal are now able to check the genuineness of applications received for issuance of Portuguese passports to Goans

BENEFITS TO COUNCILS

- Each council/ corporation can manage

the contents of the portal independently

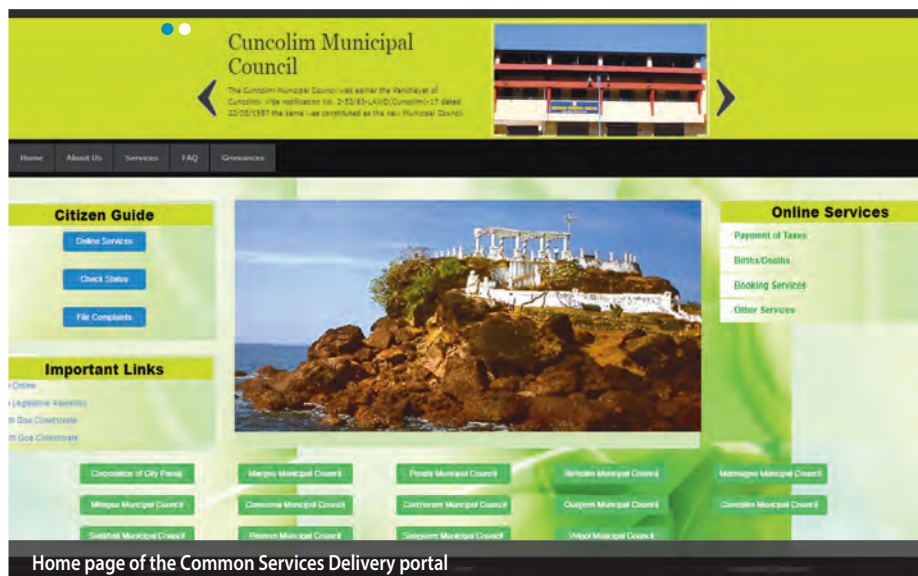
- Handling of cash reduced to a large extent due to online payment facility
- Higher officials are able to monitor the online applications received using dashboard application
- Fewer queues at the office premise for tax payments
- Improved Government- Citizen Interface

TECHNOLOGY USED

- Front end forms are developed using ASP.Net with C# as the scripting language using framework 4.0
- Backend database is Oracle10g

SUMMARY

Over the years, there has been a steady increase in the revenue collection because of the various payment options available in the portal. Due to the transparency and accountability, response of the citizens towards the portal has been very encouraging. Various department officials have applauded the efforts went in. Further, prompt and effective decisions are also being taken by the administration for improvement in the efficient services through this portal.



Home page of the Common Services Delivery portal

For further information, please contact:

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Malnutrition Monitoring System

Fostering the Implementation of ICDS in Malda, West Bengal

The system helps to sort the data based on different key parameters like child growth, MUAC (Mean Upper Arm Circumference) and breastfeeding status, and therefore to identify areas of concern and implement directed intervention. This system has recently upgraded to incorporate detailed information regarding own building of ICDS centres including those under construction with photograph and geospatial information.



ASHIS MUKHERJEE
Sr. Technical Director
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Nutritional status of a child is one of the most important indicators of the nation's health. Common indicators of malnutrition include underweight, wasting and stunting of growth. The District of Malda has a high prevalence of underweight children. 28.88 percent of the children in the zero to five age group are found to be underweight. Lack of quality monitoring system with feedback mechanism is a major challenge to the successful implementation of the Integrated Child Development Scheme (ICDS). The **Malnutrition Monitoring System** is a web enabled system based on open source tools. Its target is to create a healthy practice of continuous supervision and tackling the situation through various measures such as food supplement, referring the child to the doctor and intimating the parents concerned etc.

DELIVERABLES OF THE SOFTWARE

- Easy operation based on user roles, management and menus
- Option for Batch and Quick Data Entry, Edit and update with automatic Child ID
- Insertion of new item MUAC (Mean Upper Arm Circumference)
- Availability of various reports
- Bar Diagram for Project wise Severely Malnourished/ Malnourished Children
- Performance report with Pie Chart in 3 different ways (As reported by Supervisors, Age-vs-Weight, Height-vs-Weight)
- Individual Child Status with Graph
- Anganwadi Centre-wise details
- Project/ Supervisor/ Centre-wise list of Severely Malnourished/ Malnourished Children against the parameter (Age-vs-



“

I am happy to know about the implementation of Malnutrition software for the children of Malda District. I appreciate NIC's initiative and I am sure that through proper monitoring, the malnutrition levels in the district will be controlled. A system is as good as the people who run it. I assure you necessary support in motivating the CDPOs, the Supervisors and Anganwadi Workers.

ROSHNI SEN, IAS
Secretary
Department of Women & Child Development & Social Welfare
Govt. of West Bengal

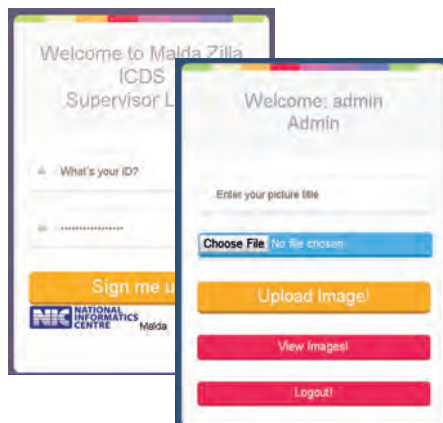
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Weight) OR (Height-vs-Weight) OR (As reported by Supervisor

- Uploading Bulk photo from Client / Server
- Menu based Data backup

MOBILE APPLICATION FOR CENTRE VISIT BY THE SUPERVISORS AND CDPOS

To monitor the field visit and centre visit by the CDPOs and Supervisors, a mobile application has been developed and implemented. Supervisors capture the activities at the Anganwadi Centre during their centre visit and upload into the portal through their Mobile phone installed with mobile App. These facilitate monitoring of field visit by the ground level officials and activities at the centre.



“

NIC Malda has played a pivotal role in aiding the administration to track the status of malnutrition among the children in various forms with this web enabled Malnutrition Monitoring System. It helps to sort the data based on different key parameters like child growth, MUAC (Mean Upper Arm Circumference) and breastfeeding status, and therefore to identify areas of concern and implement directed intervention.

KAUSHIK BHATTACHARYA, IAS
District Magistrate & Collector
Malda, West Bengal

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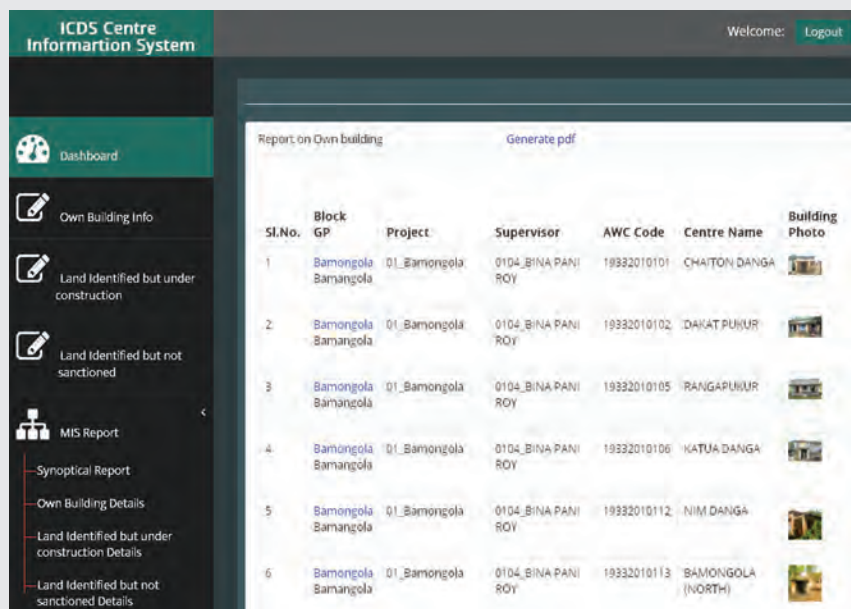
from 65,365 as on date.

- Total child records increased to 4,82,072 from 3,22,698 in the database.
- As per WHO's standard table, the health status of each child is evaluated and plotted on a graph.
- Performance of Project, Supervisors, and Anganwadi Centres are evaluated and plotted on Pie diagram.

APPLICATION FOR ICDS INFRASTRUCTURE

To monitor the existing infrastructure under ICDS and to strengthen the infrastructure through proper monitoring, a web-based application has been developed and implemented in the District during August, 2017. The

application provides login by the CDPOs and upload details of their own building, under construction building of Anganwadi Centre along with photograph. Administrative user can log in to view and monitoring.



RESULTS & OUTCOME

- The classification of the child is done on the lines of Growth Charts provided by the World Health Organization. The status of the child is plotted against age and is shown as a graph.
- Severely malnourished children reduced to 6,327 from 23,078, Moderately malnourished reduced to 35,763

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e-Granthalaya- Transforming Traditional Library to e-Library with Automation and Networking of Government Libraries

e-Granthalaya is a library management software facilitating automation of in-house activities of library as well as member services. This web-based and cloud-ready application is used online by the member libraries for data entry, return of issues and other key member services. The Software is hosted on NIC Cloud as SaaS model in cluster mode with centralized database for group of libraries.

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Edited by
MOHAN DAS VISWAM

Libraries are social institutions that play a vital role in the over-all development of a society. Libraries form the major source of information services to the citizens. In the modern education system, libraries have become an integral aspect to support learning and research activities. Currently, almost all of the government organizations have their library, which functions as the resource centre for improving efficiency of employees' duty.

It is estimated that, out of over a lakh libraries in our country, only few are fully automated. Most of the libraries are either partially automated or yet to start the automation process. National Informatics Centre (NIC) has thus taken an important step to computerize government libraries by developing *e-Granthalaya* software and implementing nation-wide . This helps the citizens to access library resources in public domain using the power of latest technologies.

E-GRANTHALAYA PROJECT

Under the *e-Granthalaya* project of NIC, the following two applications were developed:

1. E-GRANTHALAYA

e-Granthalaya is an integrated library

management software, which has been implemented in 4500 libraries successfully.

2. EGLIBNET

Union catalog of government libraries hosted on NIC Cloud and accessible at <http://eglibnet.gov.in> -In this, over 54.41 Lakh copy catalogs of 558+ Government Libraries are hosted.

e-Granthalaya is a Library Management Software that facilitates automation of in-house activities of the library as well as member services. The table in Fig-1 shows the release of various versions of the software so far. The Current version of software, *e-Granthalaya* Ver.4.0 - is a web-based, cloud ready application and is used online by the member libraries for data entry, issue-return and other member services. *e-Granthalaya* Ver.4.0 is hosted on NIC Cloud as SaaS model in cluster mode with centralized database for group of libraries. Advantages of this version are; non-requirement of installation of the application locally and maintenance free at user end as both the application as well as database are hosted on NIC Cloud.

OPEN API INTEGRATED

- RFID
- ISBN Downloader
- News API
- ILL API

Ver.	Release Year	Technology / Platform	DBMS	Edition
1.0	2003	VB6 / ASP/ Non-UNICODE	SQL Server 7	Public Libraries Edition
2.0	2005	VB6 / ASP / Non-UNICODE	SQL Server 2000	Govt. Libraries Edition
3.0	2007	VB.NET/ ASP.NET 2.0/ UNICODE	SQL Server 2005	Network Edition
4.0	2015	ASP.NET 4.0/ JQUERY/ AJAX/ UNICODE	PostgreSQL 9.4	Enterprise Edition/ Web Based/ Cloud Ready App

Figure-1

S.No	Domain specific features	Product-oriented features
1	Web-based solution	Cloud- ready application with mass deployment for government libraries.
2	Application work-flow as per Govt. libraries	Multi-Tenant application
3	Adheres to library standards such as AACR2/ MARC	Single-Signup application
4	Z39.50 built-in client search	Well Scalable with more VMs / Memory/ Processor as per requirements
5	Export/ import data in common formats (Excel/ CSV/ MARC21/ MARCXML/ ISO: 2709)	Integration with PostgreSQL– an Open Source DBMS (Other DBMS may also be used)
6	Search module with Basic/ Advance/ Boolean features	Shared cataloging with catalog download facility through API from Internet
7	Generate Bibliography in AACR2 format	User configurable components CAS/ SDI Services for Library members
8	CAS/ SDI Services for Library members	Online Help and user support thorough dedicated web site/ mail forum / user discussion forum / Feedback mechanism and Help Desk
9	Full-txt News clipping service	Hosting on Cloud with adequate resources Inter-Library Loan API
10	Digital library integration with e-Books Manager	Compliance with Library Technology and ICT prevalent in Libraries
11	Inter-Library Loan API	Supports multi-tasking, multiple screens in same/ different browsers can be opened to do various related tasks quickly
12	Compliance with library technology and ICT prevalent in libraries	Well-written documentation and user manual

KEY MODULES

- Database Administration
- Library Administration
- Master Data
- Books Acquisition
- Books Cataloging
- Circulation
- Serials Management
- Micro-Document Manager
- Library Budget
- Staff Search
- OPAC

STANDARDS COMPLIANCE

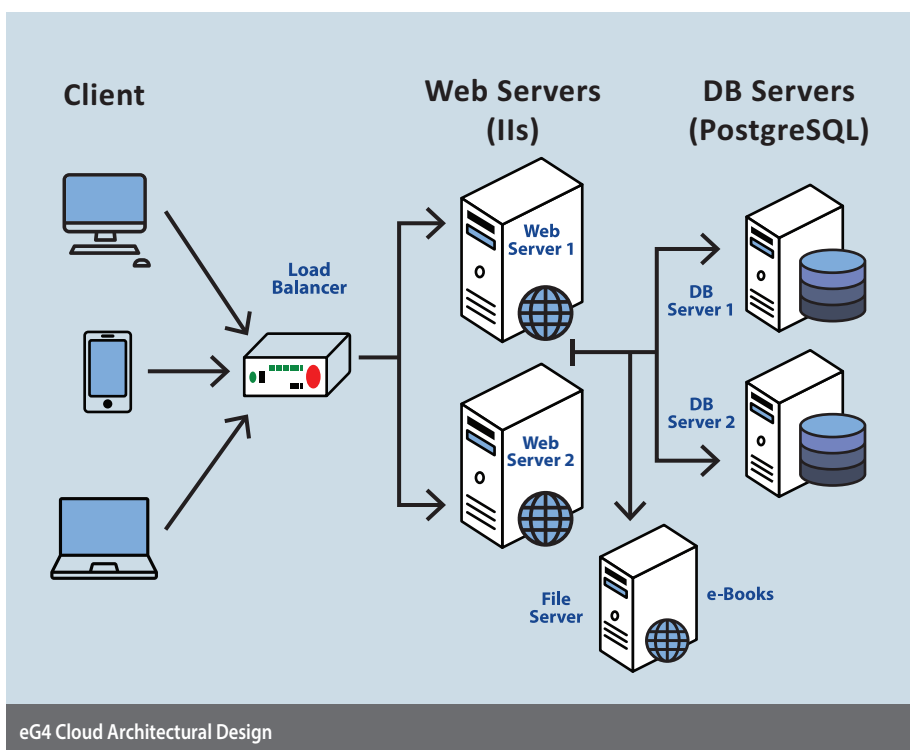
- MARC21
- AACR2
- UNICODE
- SRU/ SRW
- Z39.50
- NCIP / SIP2 for RFID
- Barcode
- Smart Card
- E-Books viewer
- XML based web services
- W3C Standards

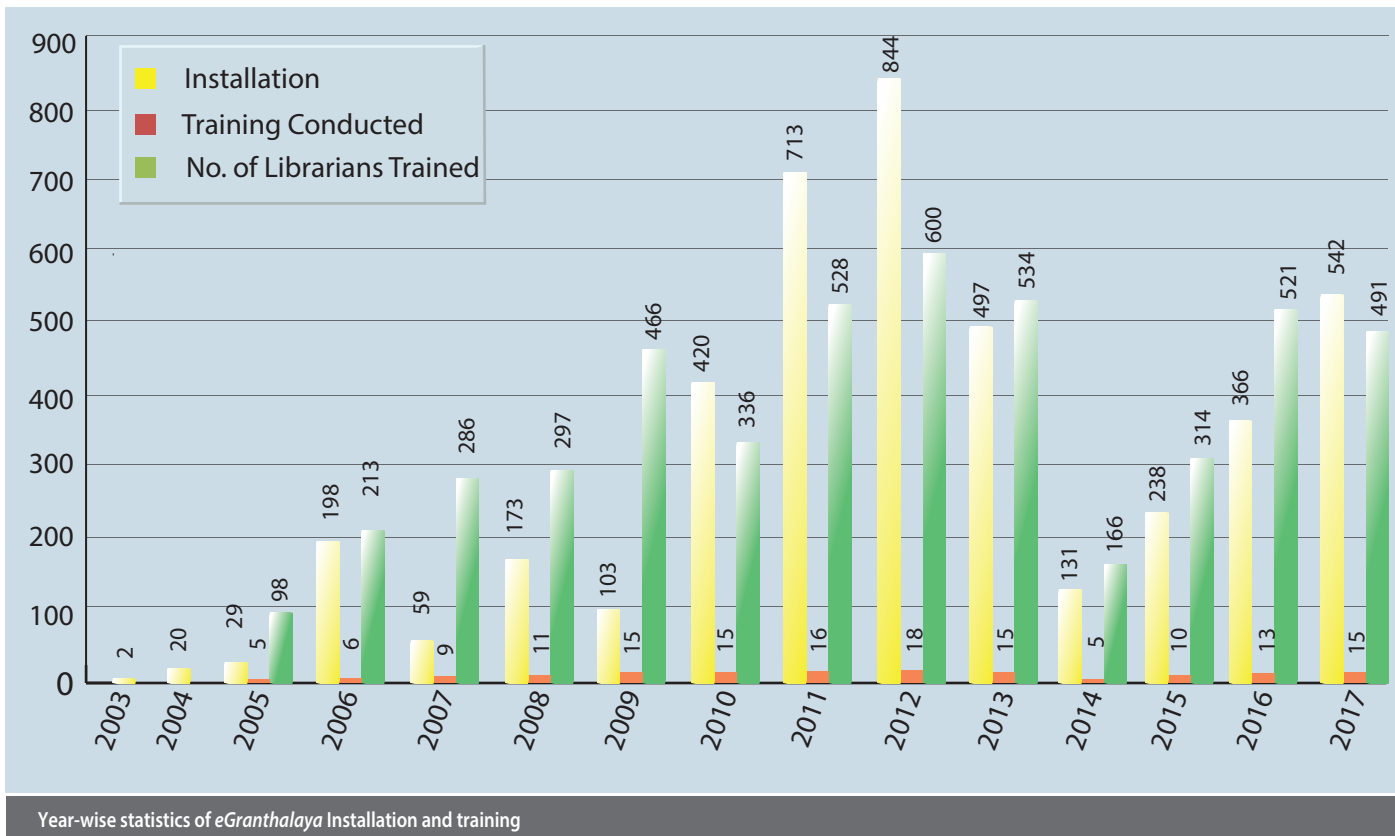
TECHNOLOGY AND ARCHITECTURE

Originally, *e-Granthalaya* was developed using proprietary technologies, however, keeping in view of the usefulness, economy and popularity of Open Sffource technology, efforts are being made to migrate the application to Open Source in phased manner. In the first phase, the back-end database of the application has been migrated from MS SQL Server to PostgreSQL – an Open Source DBMS running at LINUX platform.

The front-end of the application will also be migrated to open source platform in the near future.

Presently, the front end of the application is developed in ASP.NET 4.0 and running in Windows environment over .NET Framework 4.0.





TECHNOLOGY USED

- Front-End in ASP.NET 4.0 (Front end can connect to any type of DBMS – PostgreSQL/ SQL Server)
- Back-end in PostgreSQL 9.3/ 9.4 with auto backup implementation
- Interface is based on latest www technology such as CSS/ JavaScript/ JQuery with AJAX enabled controls, etc.

CLOUD RESOURCES

- Two web servers (Windows VM) with Load Balancer (LB)
- Two database servers (LINUX VMs) – RHL
- One file server (Windows)

STATUS

- Four versions have been released during the last 15 years
- Software has been implemented successfully in 4,500 libraries
- 154 Training programs conducted in the country, trained over 4000 librarians

- 820 Libraries are on Cloud, generated 42 Lakh holdings record belonging to 26 lakh books catalog records
- In Union Catalog – 54 lakh catalog records generated which belong to 551 libraries, accessible in public domain with Inter-Library Loan API

STRENGTH OF THE APPLICATION

- Government ownership
- Product stability as four versions have been released during last 15 years
- Standard tool for library automation
- Built-in data migration service from old version to new version
- Training and technical support by professionals
- First cloud based implementation in the Country
- Shared cataloging
- Union Catalog as a by-product

- Most used application for library automation
- Roll out services available from NIC/ NICS empanelled agencies

SUMMARY

With the passage of time, *e-Granthalaya* has become a valuable service from NIC for Government libraries. With the adoption of *e-Granthalaya* in government libraries, a network of automated libraries may be enabled to develop a well an integrated “single window access system” in the Country, another valuable service from National Informatics Centre.

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Artificial Intelligence

Growth Engine for Present & Future

Artificial Intelligence (AI) is the study and creation of computer systems that can perceive reason and act. The primary aim of AI is to produce intelligent machines. The intelligence should be exhibited by thinking, making decisions, solving problems, more importantly by learning. AI is an interdisciplinary field that requires knowledge in computer science, linguistics, psychology, biology, philosophy and so on for serious research.



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During the Second World War, Alan Turing and his colleagues at Bletchley Park succeeded in building a machine that used electro-mechanical components to decipher the communications to and from German submarines operating in the Atlantic. The German messages were encrypted using the famous Enigma machine. Arguably, the success of Turing and his colleagues was a decisive factor that helped Britain to win the war. In fact, what Turing and his colleagues did was build a special purpose computer designed to solve one particular problem; a problem that was supposed to be solvable only by an intelligent human being. Although the computer that Turing built remained a secret for many years after the war, the idea that general purpose computers, as we know them today, could solve intelligent problems was considered and became an active area of research. This was the genesis of Artificial Intelligence (AI).

Artificial intelligence is based on the assumption that the process of human thought can be mechanized. The seeds of modern AI were planted by classical philosophers who attempted to describe the process of human thinking as the mechanical manipulation of symbols. The field of AI was coined by John McCarthy in 1956 at a workshop held on the campus of Dartmouth College during the summer of 1956. Those who attended became the leaders of AI research for decades. Many of them predicted that a machine as intelligent as a human being would exist in no more than a generation and they were given millions of dollars to make this vision come true. Artificial intelligence is a major part of the most popular science fiction tale in the world, the Star Wars saga where the characters C-3PO and R2D2 were based on AI. The main advances over the past sixty years have

been the advances in search algorithms, machine learning algorithms, and integrating statistical analysis into understanding the world at large. However AI couldn't make any significant commercial impact due to lack of supporting processing power and ready field applications.

Artificial Intelligence (AI) is the study and creation of computer systems that can perceive reason and act. The primary aim of AI is to produce intelligent machines. The intelligence should be exhibited by thinking, making decisions, solving problems, more importantly by learning. AI is an interdisciplinary field that requires knowledge in computer science, linguistics, psychology, biology, philosophy and so on for serious research. AI can also be defined as the area of computer science that deals with the ways in which computers can be made to perform cognitive functions ascribed to humans.



WHAT IS AI?

• Growth in AI

Artificial Intelligence covers anything which enables computers to behave like humans. The field of AI has seen a big resurgence since 2015, the major contributor/ enabler for this resurgence are, Massive Storage capacity, Cloud Computing, Big Data, APIs and Open Source. It is predicted that by 2019 start-ups will overtake IBM, Microsoft, Amazon and Google in driving AI based economy & business solutions (Gartner). In Indian context, the economists view

Artificial Intelligence (AI)

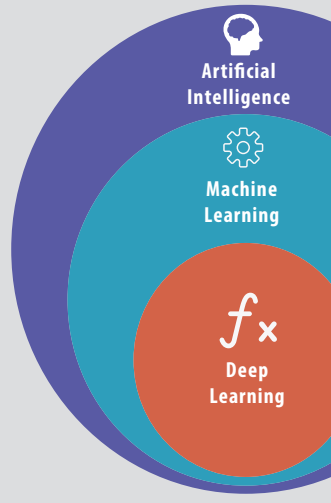
Any technique which enables Computer to mimic human behaviour

Machine Learning (ML)

Subset of AI techniques which use statistical methods to enable machines to improve with experience

Deep Learning (DL)

Subset of ML which make the computation on of multi-layer neural networks feasible



AI, propagated through the flagship programme of Digital India will act as a potential enabler to increase national productivity & growth.

MACHINE LEARNING

Machine Learning is the subset of Artificial Intelligence that deals with the extraction of patterns from data sets. This means that the machine can find rules for optimal behaviour but also can adapt to changes in the world. Many of the algorithms involved have been known for decades, centuries, even earlier. Thanks to the advances in computer science and parallel computing they can now scale up to massive data volumes.

DEEP LEARNING (DL)

Deep Learning is a specific class (subset of methods) of Machine Learning algorithms based on complex neural networks. Deep learning pertains to the use of Artificial Neural Networks (ANNs) in order to facilitate learning at multiple layers. It is a part of machine learning based approach on how data is presented, instead of task-based algorithms. It is a group of related techniques comparable to a group of “decision trees” or “support vector machines”. Due to recent advances in parallel computing, DL has received quite a bit of hype recently. DL has led the way in revolutionizing analytics and enabling practical applications of AI.

AI TECHNIQUES/ FRAMEWORKS

The techniques used within the domain of Artificial Intelligence are advanced forms of statistical and mathematical models. These models put together to provide tools to compute tasks that were reserved for humans. The goals of AI research include reasoning, knowledge, planning, learning, natural language processing (NLP), perception and the ability to move and manipulate objects.

RAGE-AI™ is a no-code fully model driven platform built with the goal of bridging the gap between business transformation idea and its realization by automating knowledge work, intuitively and rapidly.

GraphCore-AI IPU accelerators and Poplar software framework together make the fastest and most flexible platform for current and future machine intelligence applications, lowering the cost of AI in the cloud and data center, improving performance and efficiency by between 10x to 100x.

TensorFlow™ is an open source software library for numerical computation using data flow graphs. Nodes in the graph represent mathematical operations, while the graph edges represent the multi-dimensional data arrays (tensors) communicated between them. The flexible architecture allows for deploying computation to one or more CPUs or GPUs in a desktop, server, or mobile device with a single API. TensorFlow was originally developed by researchers and engineers working on the Google Brain Team within Google's Machine

Intelligence research organization for the purposes of conducting machine learning and deep neural networks research, but the system is general enough to be applicable in a wide variety of other domains as well.

Caffe framework is based on expressive architecture and extensible code. It's high speed has made it popular with researchers.

CNTK, the Microsoft's open source AI tool boasts of outstanding performance whether it is running on a system with only CPU, a single GPU, multiple GPUs or multiple machines with multiple GPUs. It is mainly utilized for research in speech recognition, machine translation, image recognition, image captioning, text processing, language understanding, language modelling etc.

DMTK is another Microsoft's open source AI tool designed for use in big data applications, it aims to make it faster to train AI systems. It consists of three key components: the DMTK framework, the LightLDA topic model algorithm and the Distributed (Multisense) Word Embedding algorithm.

Deep learning4J is an Apache 2.0-licensed, open-source, distributed neural net library written in Java and Scala. It integrates with both Hadoop and Apache Spark and runs on several backends that enable use of CPUs and GPUs. DL4J makes it possible to configure deep neural networks which are compatible with Java, Scala and other JVM languages.

NuPIC is an open source AI project based on Hierarchical Temporal Memory (HTM). It's an attempt to create a computer system modelled after the human neocortex. The goal is to create machines that "approach or exceed human level performance for many cognitive tasks."

PRESENT USAGES

- **Email filtering** for incoming emails. Users can train their spam filters by marking emails as “spam”.
- **Personalization:** Online services like Amazon or Netflix, “learn” from a user's

previous purchases and the purchases of other users in order to recommend relevant content for next purchase.

- **Fraud detection:** Banks use AI techniques to determine if there is strange activity on customer's account.

- **Speech recognition** functions as intelligent personal assistants, e.g. Amazon's "Alexa" or Apple's "Siri".

- **AI techniques** in biomedical engineering and informatics, ranging from knowledge-based reasoning for disease classification to learning and discovering novel biomedical knowledge for disease treatment.

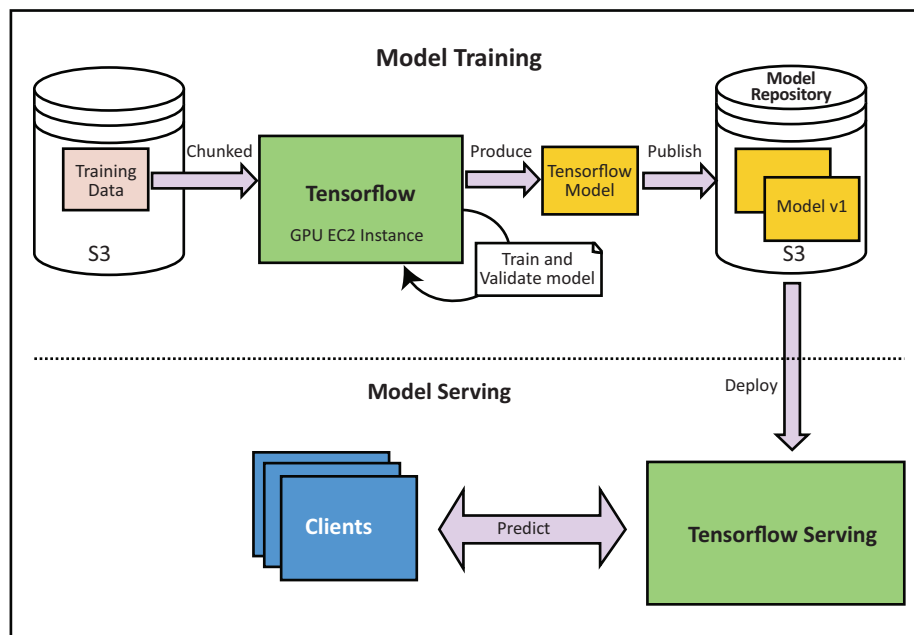
- **AI algorithm** helps the scientists to chart and explain the structure and dynamics of the universe around us with unprecedented accuracy.

FUTURE FOCUS

- **Deep Artificial Neural Networks** are trying to emulate the actual brain, enhanced AI capabilities are continuously coming out by developing better theories of how the brain works though it is still far away from imitating the human brain. The usage of AI is reflected in industrial automation (Manufacturing), Information & Communication Technology and Medical sciences.



- **Smart City:** Cities are facing significant challenges in coping with an aging infrastructure, reducing carbon emissions and energy consumption, integrating renewables, enhancing health services, reducing traffic and diminishing ambient noise. AI tools have a transformational role to play in addressing these challenges, by enabling the integration of



Model Training and Serving Architecture

information technologies with the city physical assets ensuring greener, safer and more efficient urban environments. Self driving (driverless) vehicles equipped to deal with unfamiliar scenes and complex interactions on the road shall be common in public.

- **Enhanced Medical facilities:** as the brain will be able to communicate with a robotic limb to give the patient more control. Patients digital health records study may suggest personalised drugs during treatment and also for prevention.

- **Climate change:** Big Data AI methods analyse the trends and use that information to come up with solutions to the world's climatic disasters.

- **Business Growth:** Potential outcomes from AI study over the organisation's past behaviour will recommend the changes in how work is done and reinforce the role of each personnel to drive growth in business with more accuracy.

- **Robotics:** Using Robots for examining the Extra Terrestrial objects will escalate the effectiveness of Space exploration. Challenging jobs such as producing toxic substances, operating intense heat machines and working in ear

splitting noise, can be outsourced to robots.

Advancements in four basic AI ingredients, data, compute resources, algorithms and human talent all together will sustain the growth of AI. Robotic systems will be incredibly advanced for doing knowledge based back office works and large number of industries will be more and more AI-driven, thus they will change the face of the global economy and the role of the humans soon.

No matter how dangerous AI might be for humanity and how many deponents come out against AI, there's simply no way to stop its advancement since its wheels of progress slowly grind forward with a plethora of social and ethical considerations as well as technical issues.

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DATA LAKE

A Paradigm Shift in the Next Generation Reservoirs

Data lake typically uses low-cost commodity servers in a scale-out architecture where servers can be added as needed to increase processing power and data capacity. In comparison, data warehouse can't be scaled cost-efficiently to process the growing data volume. Data lake provides fast access to targeted data for valuable business insights in dynamically changing scenario.



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Edited by
P. LENIN

Data Lake is emerging as a new paradigm to store variety of structured, semi-structured, and unstructured data in its native format, without much prior processing, as required in conventional data warehouses for data analytics. It is a schema-less repository where data is classified, organized or analyzed only when it is accessed.

BIG DATA

Big data refers to voluminous amount of structured or unstructured data collected from multiple sources in diverse formats. Gartner defines big data as “high volume, velocity and variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making”. The rapid advancement in information technology is leading to the exponential growth of data in diverse formats from various sources such as social media, press media, blogs and Internet of Things (IoT) etc. According to International Data Corporation (IDC), the data is expected to be around 44 ZB in 2020. Data scientists are continuously working on new and innovative ways to manage big data for advanced analytics.

DATA LAKE

Governments and business organizations in today's digital world are dependent on how the data is stored, managed, processed and protected for better decision-making. The majority of this data is unstructured and difficult to manage or process efficiently in traditional way. Data lake is emerging as a solution to store, manage and analyze large and quickly arriving volumes of unprocessed structured, semi-structured, and unstructured data.

Data lake is a schema-less massively scalable storage repository that holds vast amount of raw data in its native format. Data is not preprocessed before storing in the repository, as the value and analysis requirements are not clear at the outset. It is classified, organised or analyzed only when it is accessed. Advance dynamic analytical applications are used to access datasets and analyze the data. This helps the organization to address business and operational challenges which are difficult to address using traditional data warehouse technologies.

Data lake typically uses low-cost commodity servers in a scale-out architecture where servers can be added as needed to increase processing power and data capacity. In comparison, data warehouse can't be scaled cost-efficiently to process the growing data volume. Data lake provides fast access to targeted data for valuable business insights in dynamically changing scenario. The key aspects of data lake are:

COLLECT EVERYTHING

Data lake is a central repository which contains all data, even though the scope of data or its use is not known.

SCALABILITY AT LOW COST

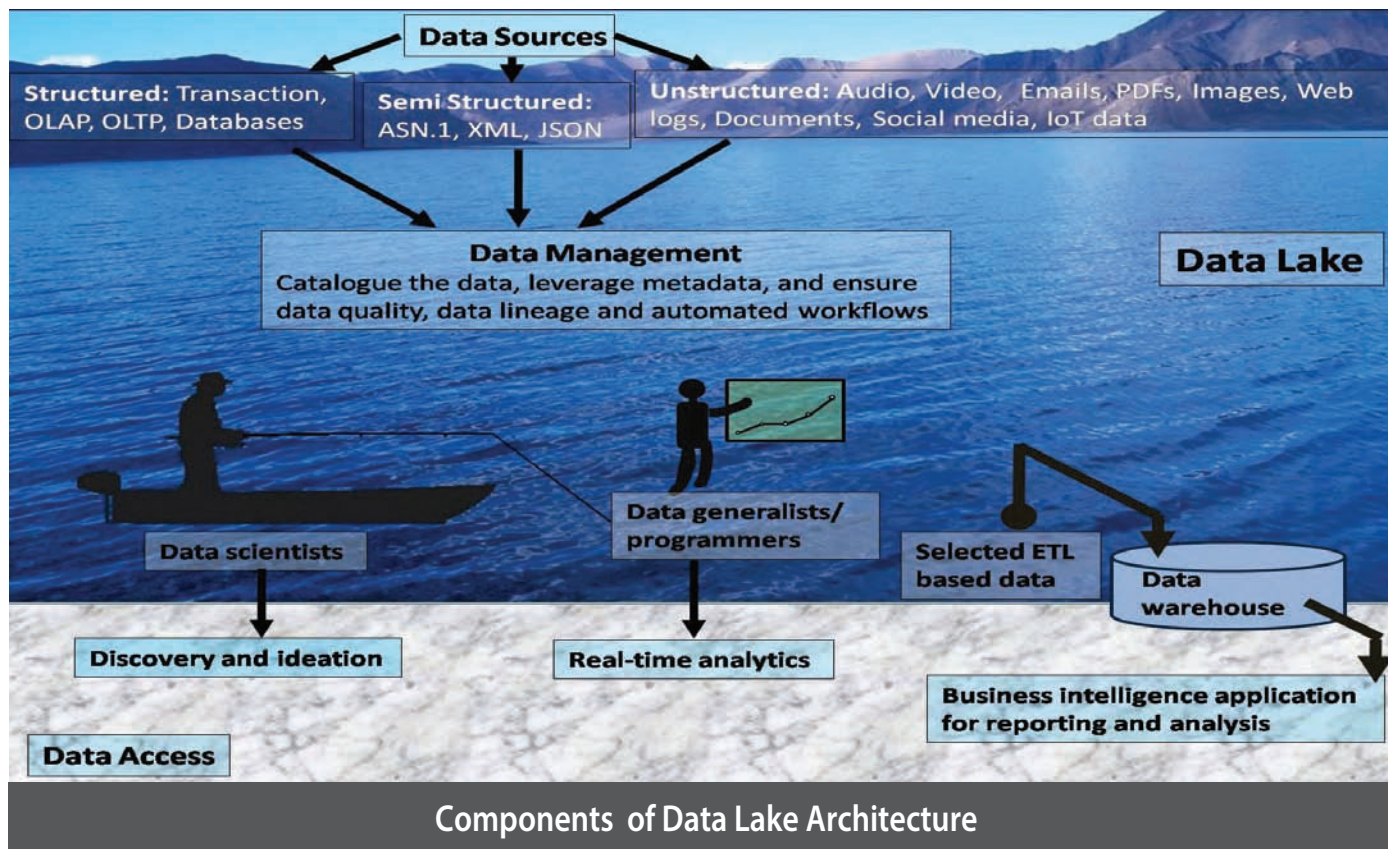
Huge amounts of data can be stored in data lake without much prior processing. Only the data that is going to be analyzed needs to go through processing step, thereby reducing the data storage cost.

HETEROGENEOUS DATA IN THE SAME REPOSITORY

Multi structured data from diverse set of sources such as logs, XML, multimedia, sensor data, binary, social data, chat and people data can be stored in data lake. It handles all kind of data regardless of its source or format.

SCHEMA ON READ

There is no need to create a schema before capturing the data. Schema is created only when reading the data.



ADVANCED ANALYTICS

Data lake removes the need for data modeling at the time of ingestion, which can be done at the time of consuming. It offers unmatched flexibility to ask any business domain questions and to seek valuable insightful information. It enables data scientists to explore new data sources and analytic techniques for better results and predictions.

FLEXIBLE ACCESS

Data lake enables multiple data access patterns across a shared infrastructure like batch, interactive, online, search, in-memory and other processing engines. Data scientists have the flexibility to change their hypothesis at any given time without worrying about data availability.

DATA SOURCES

The data lake allows collection of data for future needs before it is possible to know what those needs are. Data ingested in lake from various sources, including structured data from files and databases (OLTP, OLAP etc.), semi-structured data (ASN.1, XML, JSON) and unstructured data (emails, documents, pdfs, images, audio, video etc). A data lake provides

massive storage for any type of information that comes from multiple resources and arrives in multiple formats. Data flows into data lakes on the basis of real time, incremental, batch or one time copy.

DATA MANAGEMENT

Data lake management platform ingest and manage large volumes of diverse data sets in the data lake. It allows cataloging the data, leveraging metadata, and supports the ongoing process of ensuring data quality, data lineage, and automating workflows. Each element in data lake is assigned a unique identifier and tagged with a set of extended metadata.

DATA ACCESS

Data access services allow outside tools or applications to access data stored in the lake, regardless of the format or type of persistence like analytics programs, business intelligence resources and a range of other applications. There are many ways to access data from the whole sets to individual objects. File transfers, APIs, SQL queries, even search are all possible mechanisms for accessing data stored in the lake. Selected data which has

gone through the process of Extraction and Transformation can be Loaded (ETL) in data warehouse.

FUTURE OPPORTUNITIES

Data access and management in digital world is becoming a critical priority, especially in the backdrop of big data that is being created in variety of formats from diverse sources. Data lake is emerging as a new approach to store and manage big data and uses it, as and when required, for advanced data analytics. Governments across the world are also dealing with massive amount of structured and unstructured data, which may require creation of their own data lakes. This will enable governments to access diverse data sets for real-time, data-driven decision-making and achieving new insight.

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Appscape

Marketing the Mobile Apps deserves equal (or even more) importance compared to its design and development. App Stores provide the facility to publish the Apps and make it available for prospective audience. App Stores are digital distribution platforms for Mobile Apps, where users can browse and download the Apps. Besides, they keep count of downloads and notifies users of availability of newer versions. Users can give comments and rating of Apps, which further boosts its publicity. App stores are usually maintained by the OS provider like Android, Apple, and Microsoft. However, many third party stores also exist on the web.

An Account in an App store needs to be subscribed on payment. NIC holds accounts in Google and Apple Stores. Android and iOS Apps developed by NIC can be published free of cost in such stores using these accounts. While Android Apps would be normally published within a day or two after submission, publishing of iOS Apps can take even upto a week. Besides, NIC has a mobile App repository of its own (accessible at <https://egovmobileapps.nic.in>) showcasing NIC's capabilities in mobile computing. It acts as a single source for all NIC mobile Apps, and is the base for answering RTI queries and Parliament Questions. Hence all NIC Apps may be invariably submitted to this store.

In this issue, Appscape covers mobile Apps from various sectors such as finance, tourism and agriculture. The Government eProcurement System of National Informatics Centre (GePNIC) Mobile App provides access to tenders published on the Central Public Procurement Portal. eKosh Mobile App enables government employees to access pay slips, provides status of challan to users, and payment status to vendors in Chhattisgarh. Odisha Tourism provides various information regarding tourism facilities available in the State. The Soil Health Card Mobile App is available for registering the soil samples collected at farm fields. GST system of Goa Mobile App is for viewing collected tax and search a tax payer based on ARN, GSTIN & Trade Name.

- C.J. ANTONY, NIC HQ



For Apps uploading queries:
eMail: mobileapps-nic@nic.in
Phone: 011- 2430 5494 (Deepak)

Visit the Mobile App Store:
<http://egovmobileapps.nic.in>

GePNIC Mobile App

GePNIC Mobile App developed by NIC provides convenient, easy & free access to Tenders published on the Central Public Procurement Portal. This App provides details of eTenders published by various entities of Govt. of India through the Central Public Procurement Portal. Access to complete tender information is free and the users can visit the URL: www.eprocure.gov.in for additional details.

Overall Features are :

- Search easily for Tenders, Quotations, Bids and Contracts or receive Daily Notification, Alerts which are personalized to the business sector
- Any enrolled bidder can have access to pending activities of the day
- Latest Corrigendum Details, To Do List, Recent events, Bid awards
- View the full Tender Details, including Publishing Date, Closing Date, and Tender Description and other relevant details
- Details of all published tenders real time through the mobile App
- Provision to get alerts on specific product categories
- Secured access to information on demand
- Information provided to General Public as well as enrolled bidders
- Enrolled users can see the complete tender status at any point of time
- Award of Contract/ Bid Awards information retrieval

Queries: [Srinivasa Raghavan K \(raghavan@gov.in\)](mailto:Srinivasa Raghavan K (raghavan@gov.in))



<https://play.google.com/store/apps/details?id=gov.nic.eproc>

eKosh Lite App

eKosh App is an online mobile application for Chhattisgarh Government Employees, e-Challan users (challan pay by user using eChallan portal) and all Registered vendors in Chhattisgarh State. The mobile App has been designed and developed by National Informatics Centre CG, Raipur.

Sections in the eKosh App include:

- **Karmchari Mitra**

Karamchari Mitra section is for the Government employees. Through this, employees can download their pay slip and view the status of their bills of Government Provident Fund (GPF) Advance, Medical Bill, Festival Bill on the basis of Pay, Month and Year.

- **eChallan Corner**

Users of this section can get their eChallan status, Download receipt on the basis of Treasury Reference Number.

- **Vendor Corner**

All registered vendors in Chhattisgarh State can get their payment status on the basis of Pay, Month and Year.

Queries: *Himanshu Sekhar Tripathi (hstripathi@nic.in)*



<https://play.google.com/store/apps/details?id=com.cgtreasury.cgekosh.ekoshlite>

Odisha Tourism App

Odisha Tourism Mobile App helps travellers and tourists to explore and find tourism and travel destinations of Odisha, its culture, various cuisines, hotels and restaurants. The information provided on upcoming events and programmes in the State helps visitors to plan their trips and accommodation. Facility for online booking has also been made available through this App.

The Odisha Tourism App helps the tourists to reserve accommodation at OTDC chain of hotels, other prominent hotels, sight seeing tours, car rental and package tours. Planner of the App help visitors to schedule holiday plan, avail services such as skilled manpower, approved tour operators, trained guides as well as flight and train information for their travel.

'About Odisha Tourism', 'Major Attactions in Odisha', 'Temples & Monuments', 'Beaches & Lakes', 'Wildlife/ National park/ Reserves', 'Fairs & Festivals', 'Tribes of Odisha', 'Popular Destinations' and 'Travel Guide' include the major sections of the App.

Queries: *Ch. Swarna Prava Panda (swarna.prava@nic.in)*



<https://play.google.com/store/apps/details?id=com.nic.department.odishatourism>

Soil Health Card Mobile App

The Soil Health Card is a web based mobile application, which facilitates generation of Soil Health Cards in 22 languages and 5 dialects. It facilitates automatic calculations of fertilizers recommendation based on soil test values using General Fertilizers Recommendations and Soil Test based Crop Response.

The Soil Health Card Mobile App is used for registering soil samples collected at farm fields and sends this information to the National Soil Health Card Portal. Registration requires entry of essential details about farmer, his land holdings, crops for which recommendations are sought and fertilizers available or required to improve the health of the soil. This App automatically captures the longitude and latitude of the place where samples are collected, thus ensuring authenticity of sample collection and correctness of the information. The App does not require net connectivity during sample details entry from the fields. Data is stored and pushed on server whenever net connectivity is established. The App facilitates fetching the data entered in the first cycle during sample registration for second cycle making the data entry for second cycle easier.

The information thus entered using the App can be accessed by user at Soil Health Card portal.

Queries: [Dr. Ranjna Nagpal \(ranjna@nic.in\)](mailto:Dr.RanjnaNagpal(ranjna@nic.in))



<https://play.google.com/store/apps/details?id=com.nic.soilhealthcard>

GST System of Goa App

GST System of Goa App provides information such as Tax Collection Status, Returns, Registration, Tax Payer Allotment, Migrated Tax Payers, TRANS, e-Sign etc. The real time revenue collection of SGST, IGST, CGST, CESS, Tax, Interest, Fee, Penalty etc. are also available besides the complete information on Returns i.e GSTR3B, GSTR1, GSTR2, GSTR3B, GSTR4. Department officials can view returns filled by the tax payers. The month-wise non-filer list is readily available for enforcement. The complete data of GSRT3B by GSTIN/ Name like outward supplies, Input Tax Credit (ITC) and Tax Payment are shown.

Registration section contains various information about the tax payer and same can be searched based on ARN, GSTIN, Trade name, Business type and COT, GSTIN, Ward office etc. Search results are displayed along with 'View application' and 'View RC' options, which on click will download Application and RC of respective tax payers in pdf format. Tax payer allotment displays ward and unit wise data. It also display data based on particular GSTIN or trade name. Complete migrated tax payers bifurcated between State and Central is available in pdf format based on turnover.

The Department Authority can approve the fresh registration applications through mobile App using e-Sign from anywhere. This feature enables instant service to the dealers.

Queries: [K.P. Pariselvan \(kpp.pari@nic.in\)](mailto:K.P.Pariselvan(kpp.pari@nic.in))



<https://play.google.com/store/apps/details?id=com.goagst.govsystem.gst>



Nitin V. Choudhari, DIO, NIC-Akola receiving CSI-IT Innovation and Excellence Awards at IIT, Bombay during 6-7 October 2017

Award: CSI- IT innovation and Excellence Awards 2017
Categ.: Best Government Organization for Implementation of Cognitive Technologies
State: Maharashtra

Mutation is the process of changing the ownership details in Record of Rights (RoR). The e-Mutation project, for which the award was conferred, involves switch over from Offline Land Records e-Mutation processing using Land Records Management System (LMIS) implemented in 2001-02 under Computerization of Land Records (CLR) scheme to online Land Records processing with Online e-Mutation under National Land Records Modernization (NLRMP) scheme.



GePNIC-A Futuristic Technology Solution for Good Governance in India receives South Asia Procurement Innovation Awards 2017

Award: South Asia Procurement Innovation Awards 2017
Categ.: Innovation
State: New Delhi

The Central Public Procurement Portal of Government of India, developed by National Informatics Centre (NIC) is a single point access for information on all procurements by various organizations and entities of Central Government and State Government across the country. It facilitates electronic or e-tendering using the Government e-Procurement System of NIC (GePNIC). Over 350 Central Government organizations, apart from 27 State Governments and Union Territories are using GePNIC, which is also available on mobile phones with Apps downloadable from popular Appstores. More than 2.7 million e-tenders worth over Rs. 402 trillion have been processed since the inception of GePNIC. The system, designed taking into account the procurement rules followed by India is customizable for the procedures followed by the World Bank, Asian Development Bank, etc.

Watch out for a special feature with visual glimpses of



weaving a Digital India

in the next issue of INFORMATICS

Canadians Mobile Subscriptions Up 13% as Data Use Surges 25%

The number of mobile subscriptions in Canada grew by over 3 million in 2016, a 13.3 percent year-on-year rise, according to the 2017 Communications Monitoring Report released by communications regulator CRTC. Monthly mobile data usage also increased, by 25 percent year on year, to 1.2GB per user, with more than a quarter of the country's 30 million-plus subscribers subscribing to plans with at least 5GB of data. Average monthly consumption of data via fixed home internet connections also climbed by an annual rate of over 23 percent last year to 128GB, said the CRTC.

Increased usage led to a rise in average household spend on

communications services to CAD 218.42 per month in 2016, up 1.7 percent year on year, with mobile services accounting for 40 percent, followed by TV with 25 percent, internet with 21 percent and telephone services with 14 percent.

Total revenues for Canadian communications service providers came to CAD 66.6 billion, with telecommunications revenues rising to CAD 48.7 billion from CAD 47.8 billion in 2015. The mobile sector accounted for USD 23.2 billion while the internet sector's revenue jumped by 10.1 percent year on year to CAD 10.2 billion.

Source: <https://www.telecompaper.com/>

Japan Placed 10th in Global Ranking for Information and Communication Technology, Up One Spot from 2016

Japan was placed 10th in a global ranking that assesses nations on their level of development in information and communication technology, moving up one spot from last year, according to an annual United Nations report.

The survey, published Wednesday by the U.N.'s International Telecommunication Union, placed Iceland at the top of a list of 176 countries and regions, followed by South Korea, Switzerland, Denmark and Britain.

South Korea had held the top spot in 2016, but ceded its lead because the percentage of households with computers and the nation's "international internet bandwidth per internet user," a measure of average international data usage, was lower than that of Iceland, the survey said.

Japan's government planning, investment in research and development, and sophisticated consumers have contributed to its rapid adaptation of the latest ICT, the survey said. It also noted Japan's high level of mobile communications access, with 96 percent of households owning a mobile phone in 2015.

The ranking included France in 15th place, the United States in 16th place and Singapore in 18th position. China ranked at No. 80 despite rapid growth in its ICT sector, but the survey said the country "is in a good position" to take advantage of the recent rise of "internet of things" technologies — a concept under which various everyday items are connected to the internet.

Seven of the top 10 countries are within the EU, including the Netherlands (No. 7), Norway (No. 8) and Luxembourg (No. 9).

Japan ranked third in the Asia Pacific region, behind South Korea and Hong Kong and followed by New Zealand and Australia. Despite the region's growing potential to stand as the leader of the digital economy, there are significant gaps between leading ICT countries and those lagging behind, the survey said.

The survey also showed that a gender gap in internet usage is particularly serious in the least-developed countries, as only 1 in 7 women were using the internet compared with 1 in 5 men. The gap was relatively small in developed economies, where more than 80 percent of the population is estimated to be online.

Africa remains the only region where the gender gap is still widening, although internet access rates in the region have grown. This suggests the increase was predominantly driven by men, the survey said.

The survey said next-generation ICTs, such as the internet of things, big data, cloud computing and artificial intelligence will enable people to find new opportunities in business, government and society, claiming that "countries will need to create conditions supportive to the deployment of next-generation network and service infrastructures" to benefit current advances.

The survey, launched in 2009, measures and compares levels of development in ICT based on three indices — access, usage and skills — and 11 indicators, including fixed and mobile phone subscriptions per 100 inhabitants, the percentage of individuals using the internet via computers or mobile devices, and the enrollment ratio for secondary and tertiary education.

Source: <https://www.japantimes.co.jp/>

Hon'ble Chief Minister, Himachal Pradesh Inaugurates Development Schemes over VC

Shri Virbhadra Singh, Hon'ble Chief Minister of Himachal Pradesh has inaugurated the developmental works at various locations in districts Kangra, Chamba and Shimla over Video conferencing. The Video Conferencing facility set up by National Informatics Centre, Himachal Pradesh was used by the Chief Minister's office and at District centre of Kangra and Chamba. Other sites were connected using NIC Vidyo Desktop facility. The use of NIC's video conferencing service for such events including inaugurations and stone laying ceremonies has saved public money and time of the government functionaries.



Hon'ble Chief Minister interacting with the public on remote site using NIC's Vidyo Video Conferencing service

- AJAY SINGH CHAHAL, HIMACHAL PRADESH

Odisha joins Open Government Data Initiative with launching of Odisha Data Portal

With the launching of Open Government Data Portal (<https://odisha.data.gov.in>), Odisha became the fifth State in the Country to open its data for free access and use by all stakeholders in machine readable format.

On 17th October 2017, Chief Secretary, Shri Aditya Prasad Padhi inaugurated the portal in the presence of Shri Ashok K. Meena, IAS, Commissioner-cum-Secretary, IT, Shri Rudra Narayan Palai, ITS, Spl. Secretary, Electronics & IT, Government of Odisha, Smt. Nandita Chaudhri, DDG, NIC New Delhi and Smt. Alka Mishra, Sr. Technical Director & Head, OGD team, NIC New Delhi.

Smt. Nandita Chaudhari, while delivering the welcome address on the occasion lauded the impressive steps taken by Government of Odisha and offered whole-hearted support of NIC in taking this initiative forward.

Smt. Alka Mishra, spoke on open government data and its benefits to stakeholders where State Government is committed to provide conducive environment for the growth of MSME entrepreneurs. Shri Ashok K. Meena told that government departments generate a lot of data during their functioning and implementation of various developmental schemes. These data are very much useful for governance, learning and awareness.

Chief Secretary, Shri Aditya Prasad Padhi, IAS said that data is the most valuable resource for the present generation like oil in the 1970s. Artificial intelligence, machine learning and digital learning are emerging as effective methods for the present and the future. Press meet was organized to address the Open data Initiative.



Chief Secretary, Odisha, Shri Aditya Prasad Padhi on dais along with dignitaries during the launch of Odisha Data Portal

The inaugural session was followed by a day-long workshop on open government data, which was attended by Secretaries, Chief Data Officers & Data Contributors drawn from all departments.

During the second half of the workshop, Shri Shubhadip Biswas, Sr. Analyst, OGD team, demonstrated the work flow of the software. He imparted detailed training to data contributors on how to create catalogues, datasets and publish them.

Shri R.N.Palai, Special Secretary, Electronics and IT delivered vote of thanks. Smt. Alka Mishra, Sr. TD and Shri D.P. Misra, TD, NIC OGD team, New Delhi provided necessary guidance for the workshop and launch of portal.

NIC Odisha OGD team including Shri Tapan Prakash Ray, Sr TD, Shri Nihar Ranjan Biswal, TD, Shri Malay Pattanayak, TD, Dr. Ashis Kumar Mahapatra, TD headed by Dr. A.K. Hota, Sr. TD coordinated the workshop. Shri P.K. Pramanik, DDG & SIO Odisha guided the team from time to time.

- A.K. HOTA, ODISHA

Technical Support Provided by NIC Bilaspur, Himachal Pradesh during Prime Minister's Visit



on'ble Prime Minister Shri Narendra Modi visited District Bilaspur of Himachal Pradesh on 3rd October, 2017. He was received by the Governor of Himachal Pradesh, His Excellency Acharya Devvrat, Union Health Minister, Shri Jagat Prakash Nadda and Chief Minister of

Himachal Pradesh Shri Virbhadra Singh at the Luhnu Ground Helipad.

NIC District Centre Bilaspur team headed by Shri Rakesh Kumar, DIO Bilaspur along with FMS Shri Vivek Gupta and Shri Shyam Kaushal provided technical support to the District Administration during the visit. On 2nd October, 2017, the day before the arrival of Prime Minister, an IT Cell in the PMO Tent was setup by NIC Bilaspur (H.P.) at the Luhnu ground venue.

The Prime Minister laid the foundation stone of the All India Institute of Medical Sciences (AIIMS) to be opened at Kothipura in Bilaspur District. The AIIMS is proposed to be constructed



Hon'ble Prime Minister, His Excellency, the Governor of Himachal Pradesh, Chief Minister and Union Minister at the venue

in 205 acres of land. Initially, the AIIMS will have 20 super speciality blocks having 750 bed capacities. It will have intake of 100 MBBS students and 60 nursing students per batch per annum. The Prime Minister also laid the foundation stone of the Indian Institute of Information Technology (IIIT) to be set up at Saloh in District Una and Tata Digital Nerve Centre for Bilaspur and Kullu Districts for quality primary health care at the Luhnu Indoor Stadium, Bilaspur (H.P.).

- AJAY SINGH CHAHAL, HIMANCHAL PRADESH

Master Trainers Workshop held on National Government Services Portal



One day Master Trainers Workshop on National Government Services Portal (NGSP) - <https://services.india.gov.in> designed and developed by National Informatics Centre was organized by Department of Administrative Reforms and Public Grievance (DARPG) in collaboration with NIC & UNDP, India at Hotel Vivanta, New Delhi on 13th October 2017.

Addressing the participants during the inaugural session Smt. Smita Kumar, Joint Secretary, DARPG lauded the efforts of NIC in developing the Government Services Portal and praised the efforts of NIC. She expressed that ongoing improvements in National Portal and Government Services Portal by NIC would strengthen India's Online Services Index in the global ranking of United Nations Global e-Government Survey.

Smt. Alka Mishra, Senior Technical Director, NIC explained the objective behind the creation of National Government Services Portal and encouraged the participants to contribute actively on the Portal thereby making the services provided by Government entities easily accessible to the Citizens.

The other members representing the India Portal team (NIC) were Shri Lokesh Joshi, Technical Director, Shri Shashi Kant Pandey, Scientist-D and Shri Pankaj Kumar, Scientific Officer.

The NIC team presented the workflow and best practices in



Smt. Alka Mishra, Sr. Technical Director, NIC addressing the participants during the inauguration ceremony of the workshop

creating the metadata for the Service URLs. Detailed information on the usage of Content Management System to contribute the service was provided followed by interactive hands on session. The team also answered the technical queries of the participant on various aspects of the project.

Representatives from UNDP explained the importance of the National Government Services Portal and elaborated how the presence of even more services on the portal would help our Country improve its global ranking.

54 participants from 22 States & UTs and 7 Ministry & Departments attended the workshop. During the concluding session of workshop, the participants provided the tentative numbers of services they would contribute on the NGSP to improve the visibility of services provided by their respective State/ UT/ Ministry/ Departments.

-SHASHI KANT PANDEY, NEW DELHI

Hon'ble Chief Minister, HP Launches Shresth Himachal Mobile App



Hon'ble Chief Minister launches Shresth Himachal (Excellent Himachal) App on 5th October 2017 in Shimla. Shri V.C. Pharka, Chief Secretary, Shri Kaul Singh, Revenue Minister, Shri Prakash Chaudhary, Excise & Taxation Minister and MLAs were present on the occasion. The App can be used by citizens and administration for grievances and complaints related to crime, disaster, garbage, road blockage, forest theft/ fire or road accident. Shri. VC Pharkha, Chief Secretary guided the development of this Mobile App.

For filing complaints, user can authenticate themselves through their mobile phone using OTP. One can also send photograph of the incidence with GPS coordinates. The details are then provided to the concerned Sub Divisional and District government functionaries and accessible through their respective dashboard for carrying out necessary action.

The emergency contacts in the App can be used to send emergency SMS and the GPS coordinates of the sender helps in



Hon'ble Chief Minister launching the Shresth Himachal Mobile App

finding/ tracking if needed. A complete directory of important functionaries of Himachal Pradesh government is also available upto the Sub-Division/ Block level.

The App has been developed by the NIC, Himachal Pradesh, a competency centre for developing mobile Apps in the country. The App can be downloaded to smart phones from the web portal of Himachal Government, NIC's eGovMobile App Store and Google PlayStore.

- AJAY SINGH CHAHAL, HIMACHAL PRADESH

'OpenGovDataHack' held in Bhubaneswar impressively



Open Government Data (OGD) Platform India of NIC, in association with Internet & Mobile Association of India (IAMAI) and StartUp India organized a 24 hours Hackathon "#OpenGovDataHack" at Kalinga Institute of Industrial Technology (KIIT), Technology Business Incubator (TBI), Bhubaneswar on 28th & 29th October 2017. This was organized for students, entrepreneurs, innovators, start-ups, developers, academicians and communities to create unique and innovative service delivery applications and infographics to foster innovation by using Open Government Data.

Shri Rudra Narayan Palai, ITS, Special Secretary, Electronics & IT Govt of Odisha inaugurated the event in the presence of Officers from NIC & OCAC. Shri Manoj Panda, Head TCS Bhubaneswar was also present at the occasion.

52 teams with 198 team members have participated in this 24 hours mega non-stop application coding event. Teams from various engineering colleges and startups from Odisha have developed applications for various sectors such as Transport, Education, Crime, Health and Water & Sanitation.

Shri Ashok K.K. Meena, IAS, Commissioner-cum-Secretary,



Shri Rudra Narayan Palai, ITS, Special Secretary, Electronics & IT Govt. of Odisha along with other dignitaries at the inauguration in KIIT-TBI

E&IT Dept., Govt. of Odisha felicitated the selected teams at the closing ceremony on October 29th. Apart from the six awards conferred by MeitY, KIIT-TBI and Karma also sponsored four awards to encourage participants from Odisha. 8 teams from Bhubaneswar Hackathon of Apps development category would move to the national level.

NIC-OGD team from New Delhi and Bhubaneswar extended necessary mentoring to the participants in the 24 hrs coding process.

- A.K. HOTA, ODISHA

National Informatics Centre showcased its projects at the International Geeta Jayanti Mahotsav 2017 at Sirsa

International Geeta Jayanti Mahotsav 2017 was celebrated at Ch. Devi Lal University, Sirsa (Haryana) from 28th to 30th November 2017. Shri Naib Singh Saini, State Minister of Labour & Employment, Haryana, Dr. Vijay Kumar Kayat, Vice Chancellor, CDLU and Dr. Munish Nagpal, Addl. Deputy Commissioner, Sirsa were present at the occasion.

NIC has put up an exhibition stall in which its various important projects and initiatives were displayed. The Transport and Revenue projects of NIC were highlights in which step by step workflow for Learner Driving License, Permanent Driving Licence, Dealer Point Registration and guidance for preparing Learner Licence Test. Details on delivery of Citizen Services through Common Service Centres established at about 280 Villages in the District were also showcased.

Invited guests and visitors were briefed on various G2C Services



Chief Guest, Shri Naib Singh Saini, State Minister of Labour & Employment, Haryana at the International Geeta Jayanti Mahotsav opening ceremony

operational through VAHAN, SARATHI, STALL, HARIS, HALRIS, eDistrict / eDisha etc. through eDisha Centres established at District, Sub-division and Tehsil level, which were well appreciated by distinguished personalities and visitors.

NIC has also arranged the display of videos related to Saraswati River and Shlokas of Shrimad Bhagawat Gita along with their meanings using LED display at the exhibition pavilion.

- DEEPAK SAWANT, HARYANA

Hon'ble CM of Maharashtra inaugurates Website and GIS Portal of Slum Rehabilitation Authority of Maharashtra

The website (<http://sra.gov.in>) and GIS Portal of Slum Rehabilitation Authority of Maharashtra (<http://umd.nic.in/sra>) developed with the technical support of NIC was inaugurated on 21 November 2017 at CM Secretariat, Mumbai by the Hon'ble Chief Minister of Maharashtra in the presence of State Housing Minister, Additional Chief Secretary Housing, CEO of SRA, DDG, NIC HQ, SIO, NIC Maharashtra and various other officers of NIC State and NIC HQ. The website disseminates information on various slum rehabilitation projects of Maharashtra and enables online interaction of citizens with SRA Officers.

Geographical Information System (GIS) portal provides more than ten layers of data consisting of administrative ward boundaries, village boundaries, Slum Cluster boundaries, SR Schemes boundaries and Terrain Map services. The GIS portal is developed with the support of Utility Mapping Division of National



Hon'ble Chief Minister of Maharashtra, along with State Housing Minister inaugurates the Website and the GIS Portal of SRA

Informatics Centre, New Delhi.

Hon'ble Chief Minister appreciated the excellent efforts of the Officers of SRA, Housing Department, NIC HQ and SIO, NIC Maharashtra and his team for making the project successful.

- MOIZ HUSSAIN, MAHARASHTRA

15th APCERT Annual General Meeting & Conference 2017 hosted by CERT-In



The 15th Annual Conference was held in New Delhi during 12- 15 November 2017 and for the first time in India as well as South Asia. The host of the conference, CERT-In gave a warm welcome to the members and guests. The theme of the event was Building Trust in the Digital

Economy.

APCERT is a community of CERT and CSIRT organisations located in the Asia-Pacific area. Originally formed in 2003, its membership has now grown to 30 organisations representing 21 economies, as well as a number of supporting partner organisations. APCERT's goals include information sharing and cooperation between its members and the public.

Hon'ble Union Minister, E&IT and Law & Justice, Shri Ravi Shankar Prasad inaugurated the event in the auspicious presence



Hon'ble Union Minister, E&IT, Shri Ravi Shankar Prasad speaking to the gathering during the inaugural session

of various dignitaries which includes Shri Alphons Kannanthan-am, Hon'ble MoS, E&IT.

This year, CERT-In was accepted as a new member of the steering committee, and after recognising the hard work of JPCERT/CC, MyCERT, and CERT Australia in their positions as Secretariat, Deputy Chair, and Chair respectively, the members of APCERT voted to re-appoint them to their previous positions

International Conference on Cyberlaw, Cybercrime & Cybersecurity 2017 held in New Delhi



The International conference on Cyberlaw, Cybercrime & Cybersecurity 2017 was held on 16th & 17th November, 2017 at New Delhi. The aim of the Conference was to examine and analyze the emerging Cyberlaw, Cybercrime and Cybersecurity trends of today's times. Numerous distinct sessions were held with more than 150 speakers across the world. The Conference was attended by various international delegates and speakers and also representatives from the national Diaspora representing the stakeholders in the digital ecosystem and alive web.

Hon'ble Chief Justice of India, Mr. Justice Dipak Misra in the inaugural speech stressed upon the need for concentrating on emerging legal, policy and regulatory issues concerning cyberspace and the need for all stakeholders including lawmakers and judiciary to be more aware about the nuances of emerging cyber technologies.

Representatives from the Central & State Governments, Law Enforcement Agencies, Business, Information Technology, Corporate Sector, Academicians, Scholars, Service Providers, International Organizations and distinguished thought leaders participated the Conference. The supporting organizations include UNESCO, ITU, UNU-EGOV, Council of Europe, Europol Cybercrime Centre, Internet Corporation for Assigned Names & Numbers (ICANN), Internet Society, World Federation of Scientists, International Association of Prosecutors, Global Prosecutors E-Crime Network, Asia Cloud Computing Association and MeitY, Government of India.



Smt. Neeta Verma, DG, NIC, one of the key speakers being felicitated by Dr. Earl Johnson, President & CEO of International Consultants and Investigations, Inc.

51 distinct topics and subjects were covered in the Conference in various sessions on different aspects concerning subjects of cyberspace including Cyberlaw 2017 & Beyond, Cyber Security & Cyber Security Law – Emerging Trends & Challenges, Cybercrime – Latest Trends and Challenges, Electronic Evidence, Ransomware, Botnets and Distributed Denial of Service, Spam, Malware, Spyware and their regulations, Cyber Diplomacy, Cyber Sovereignty, Internet of Things, Big Data, Artificial Intelligence, Applicability of Blockchain for Banking and Finance etc.

The Conference Outcome Document mandated various steps that need to be taken by the international & national stakeholders in order to further address legal, policy & regulatory issues concerning cyberspace.